

Wegert, S.
09/674597
Seq. 1D 16

GenCore version 5.1.6 Copyright (c) 1993 - 2006 Compugen Ltd.										OM protein - protein search, using sw model										January 28, 2006, 00:59:56 ; Search time 134 Seconds (without alignments) 108.205 Million cell updates/sec										US-09-674-597A-16 Perfect score: 165 Sequence: 1 SVSEIQXHNXGKHLNSXERVWLKQLQDVHNY 33										Scoring table: BLOSUM62 Gapop 10.0 , Gapext 0.5										Searched: 2443163 seqs, 439378781 residues										Total number of hits satisfying chosen parameters: 2443163										Minimum DB seq length: 0 Maximum DB seq length: 2000000000										Post-processing: Minimum Match 0% Maximum Match 100% Listing first 100 summaries										Database : A_Geneseq_21.* 1: Geneseqp1980s:* 2: Geneseqp1990s:* 3: Geneseqp2000s:* 4: Geneseqp2001s:* 5: Geneseqp2002s:* 6: Geneseqp2003as:* 7: Geneseqp2003bs:* 8: Geneseqp2004s:* 9: Geneseqp2005s:*										Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.										SUMMARIES										Result No. Query % Score Match Length DB ID Description										1 149.5 90.6 32 4 AAB91090 Aab91090 Parathyro										2 149.5 90.6 32 4 AAB91091 Aab91091 Parathyro										3 149.5 90.6 34 3 ABJ10726 Abj10726 Human par										4 149.5 90.6 34 3 ABJ10725 Abj10725 Human par										5 148.5 90.0 34 2 AAR07925 Aar07925 Human par										6 148.5 90.0 34 2 AAR07922 Aar07922 Human par										7 148.5 90.0 34 2 AAW20003 Aaw20003 Cyclised										8 148.5 90.0 34 2 AAW19997 Aaw19997 Cyclised										9 148.5 90.0 34 2 AAW20009 Aaw20009 Cyclised										10 148.5 90.0 34 2 AAW17940 Aaw17940 Human PTH										11 148.5 90.0 34 2 AAW67275 Aaw67275 Parathyro										12 148.5 90.0 34 2 AAW48392 Aaw48392 Human par										13 148.5 90.0 34 3 ABJ10720 Abj10720 Human par										14 148.5 90.0 34 3 ABJ10721 Abj10721 Human par										15 148.5 90.0 34 3 ABJ10718 Abj10718 Human par										16 148.5 90.0 34 3 ABJ10747 Abj10747 Human par										17 148.5 90.0 34 3 ABJ10750 Abj10750 Human par										18 148.5 90.0 34 3 ABJ10715 Abj10715 Human par										19 148.5 90.0 34 3 ABJ10734 Abj10734 Human par										20 148.5 90.0 34 3 ABJ10745 Abj10745 Human par										21 148.5 90.0 34 3 ABJ10772 Abj10772 Human par										22 148.5 90.0 34 3 ABJ10738 Abj10738 Human par										23 148.5 90.0 34 3 ABJ10744 Abj10744 Human par										24 148.5 90.0 34 3 ABJ10709 Abj10709 Human par										25 148.5 90.0 34 3 ABJ10741 Abj10741 Human par										26 148.5 90.0 34 3 ABJ10732 Abj10732 Human par										27 148.5 90.0 34 3 ABJ10708 Abj10708 Human par										28 148.5 90.0 34 3 ABJ10711 Abj10711 Human par										29 148.5 90.0 34 3 ABJ10731 Abj10731 Human par										30 148.5 90.0 34 3 ABJ10705 Abj10705 Human par										31 148.5 90.0 34 3 ABJ10768 Abj10768 Human par										32 148.5 90.0 34 3 ABJ10777 Abj10777 Human par										33 148.5 90.0 34 3 ABJ10728 Abj10728 Human par										34 148.5 90.0 34 3 ABJ10723 Abj10723 Human par										35 148.5 90.0 34 3 ABJ10765 Abj10765 Human par										36 148.5 90.0 34 3 ABJ10771 Abj10771 Human par										37 148.5 90.0 34 3 ABJ10773 Abj10773 Human par										38 148.5 90.0 34 3 ABJ10707 Abj10707 Human par										39 148.5 90.0 34 3 ABJ10710 Abj10710 Human par										40 148.5 90.0 34 3 ABJ10716 Abj10716 Human par										41 148.5 90.0 34 3 ABJ10762 Abj10762 Human par										42 148.5 90.0 34 3 ABJ10767 Abj10767 Human par										43 148.5 90.0 34 4 AAB96929 Aab96929 Human par										44 148.5 90.0 34 5 AAE18397 Aae18397 Human PTH										45 148.5 90.0 34 5 AAU73033 Aau73033 Parathyro										46 148.5 90.0 34 8 ADF77391 Adf77391 [Nie8, 18,										47 148.5 90.0 34 8 ADP18400 Adp18400 Neurogene										48 148.5 90.0 34 8 ADQ75348 Adq75348 PTH/PTHrP										49 148.5 90.0 34 8 ADR14837 Adr14837 Amino aci										50 148.5 90.0 34 8 ADT94475 Adt94475 Exemplary										51 148.5 90.0 35 2 AAR74449 Aar74449 Parathyro										52 148.5 90.0 35 2 AAR74454 Aar74454 Parathyro										53 148.5 90.0 35 2 AAR74453 Aar74453 Parathyro										54 148.5 90.0 35 2 AAR74448 Aar74448 Parathyro										55 148.5 90.0 35 2 AAR74462 Aar74462 Parathyro										56 148.5 90.0 35 2 AAR74527 Aar74527 Human par										57 148.5 90.0 35 2 AAR74478 Aar74478 Parathyro										58 148.5 90.0 35 2 AAR74477 Aar74477 Parathyro										59 148.5 90.0 35 2 AAR74479 Aar74479 Parathyro										60 148.5 90.0 35 2 AAR74452 Aar74452 Parathyro										61 148.5 90.0 35 2 AAR74394 Aar74394 Parathyro										62 148.5 90.0 35 2 AAR74450 Aar74450 Parathyro										63 148.5 90.0 35 2 AAR74451 Aar74451 Parathyro										64 148.5 90.0 35 2 AAR74395 Aar74395 Parathyro										65 148.5 90.0 35 2 AAR74461 Aar74461 Parathyro										66 148.5 90.0 44 2 AAR82454 Aar82454 Peptide c										67 148.5 90.0 67 2 AAW24289 Aaw24289 rPTH enco										68 148.5 90.0 67 2 AAR74528 Aar74528 Peptide e										69 148.5 90.0 84 2 AAR29569 Aar29569 Oxidation										70 145.5 88.2 34 2 AAR22294 Aar22294 Human par										71 145.5 88.2 34 2 AAR49697 Aar49697 Sequence										72 145.5 88.2 34 3 ABJ10724 Abj10724 Human par										73 145.5 88.2 35 2 AAR74403 Aar74403 Parathyro										74 145.5 88.2 35 2 AAR74465 Aar74465 Parathyro										75 145.5 88.2 35 2 AAR74465 Aar74465 Parathyro										76 145.5 88.2 35 2 AAR74405 Aar74405 Parathyro										77 145.5 88.2 35 2 AAR74447 Aar74447 Parathyro										78 145.5 88.2 35 2 AAR74481 Aar74481 Parathyro										79 145.5 88.2 35 2 AAR74494 Aar74494 Parathyro										80 145.5 88.2 36 2 AAR58271 Aar58271 [Ala11]-h										81 145.5 88.2 84 2 AAR29566 Aar29566 Oxidation										82 145.5 88.2 84 2 AAR29567 Aar29567 Oxidation										83 145.5 88.2 84 2 AAR49694 Aar49694 Sequence										84 144.5 87.6 34 1 AAP30022 Aap30022 Human par										85 144.5 87.6 34 1 AAP50377 Aap50377 [Met(O) 8,										86 144.5 87.6 34 1 AAP60031 Aap60031 Sequence										87 144.5 87.6 34 2 AAR07919 Aar07919 Human par										88 144.5 87.6 34 2 AAR22283 Aar22283 Parathyro										89 144.5 87.6 34 2 AAR22295 Aar22295 Human par										90 144.5 87.6 34 2 AAR22291 Aar22291 Human par										91 144.5 87.6 34 2 AAR22296 Aar22296 Human par										92 144.5 87.6 34 2 AAR22292 Aar22292 Human par										93 144.5 87.6 34 2 AAR22293 Aar22293 Human par										94 144.5 87.6 34 2 AAR41570 Aar41570 [Gln25]h										95 144.5 87.6 34 2 AAR41549 Aar41549 [D-Ser3]h										96 144.5 87.6 34 2 AAW99449 Aaw99449 Human par										97 144.5 87.6 34 2 AAR49698 Aar49698 Sequence									
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98 144.5 87.6 34 2 AAR55724 Parathorm
99 144.5 87.6 34 2 AAR58291 [Lys (For)
100 144.5 87.6 34 2 AAR58017 [Lys (N-ep

ALIGNMENTS

```
RESULT 1
AAB91090
ID AAB91090 standard; peptide; 32 AA.
XX
AC AAB91090;
XX
DT 22-JUN-2001 (first entry)
XX
DE Parathyroid hormone (PTH) related peptide SEQ ID NO:264.
XX
KW Protection; endogenous therapeutic peptide; peptidase; conjugation;
KW blood component; modification; succinimidyl; maleimido group; amino;
KW hydroxyl; thiol; hormone; growth factor; neurotransmitter.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200069900-A2.
XX
PD 23-NOV-2000.
XX
PF 17-MAY-2000; 2000WO-US013576.
XX
PR 17-MAY-1999; 99US-0134406P.
PR 10-SEP-1999; 99US-0153406P.
PR 15-OCT-1999; 99US-0159783P.
XX
PA (CONJ-) CONJUCHEM INC.
XX
PI Bridon DP, Ezrin AM, Milner PG, Holmes DL, Thibaudeau K;
XX
DR WPI; 2001-112059/12.
XX
PT Modifying and attaching therapeutic peptides to albumin prevents
PT peptidase degradation, useful for increasing length of in vivo activity.
XX
PS Disclosure; Page 278; 733pp; English.
XX
CC The present invention describes a modified therapeutic peptide (I)
CC comprising a therapeutically active amino acid region (III) and a
CC reactive group (II) (e.g. succinimidyl and maleimido groups) attached to
CC a less therapeutically active amino acid region (IV), which covalently
CC bonds with amino/hydroxyl/thiol groups on blood components to form a
CC peptidase stabilised therapeutic peptide composed of 3-50 amino acids.
CC (I) are useful for modifying therapeutic peptides e.g. hormones, growth
CC factors and neurotransmitters, to protect them from peptidase activity in
CC vivo for the treatment of various disorders. Endogenous therapeutic
CC peptides are not suitable as drug candidates as they require frequent
CC administration due to rapid degradation by peptidases in the body.
CC Modifying and attaching therapeutic peptides to albumin prevents or
CC reduces the action of peptidases to increase length of activity (half
CC life) and specificity as bonding to large molecules decreases
CC intracellular uptake and interference with physiological processes.
CC AAB90829 to AAB92441 represent peptides which can be used in the
CC exemplification of the present invention
XX
SQ Sequence 32 AA;
Query Match 90.6%; Score 149.5; DB 4; Length 32;
Best Local Similarity 90.9%; Pred. No. 1.5e-13;
Matches 30; Conservative 0; Mismatches 2; Indels 1; Gaps 1;
QY 1 SVSEIQXHNKGKHLNSKXRVWLRKKLQDVHNY 33
DB 1 SVSEIQHLNKGKHLNS-ERVWLRKKLQDVHNY 32
RESULT 3
AAB10726
ID AAB10726 standard; peptide; 34 AA.
XX
```


DE Human parathyroid hormone analogue, Tyr34 Nle8,18 hPTH(7-34).
XX
KW Osteoporosis; hypercalcemia; hyperparathyroidism; hypertension.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Modified-site 8 /label= Nle
FT Modified-site 18 /label= Nle
FT
XX US4968669-A.
PN
XX
XX 06-NOV-1990.
PD
XX
XX 21-APR-1989; 89US-00341597.
PF
XX 09-MAY-1988; 88US-00191512.
PR
XX (MERI) MERCK & CO INC.
PA
XX
XX Rosenblatt M, Chorev M;
PI
XX WPI; 1990-354642/47.
DR
XX New para:thyroid hormone analogues - which inhibit hormone activity by
FT binding receptors while not producing second messenger molecules.
FT
XX Claim 1; Col 8; 6pp; English.
PS
XX Peptide analogues have high affinity for PTH cell surface receptors, but
CC do not stimulate production of secondary messenger molecules. They may be
CC used in inhibition of PTH action, and in diagnosis and treatment of
CC osteoporosis, hypercalcemia and hyperparathyroidism. Analogues may also
CC be used in treatment of tumours and other cells overproducing peptide
CC hormone-like substances, and immune diseases eg. allergic inflammation
CC and hyperactive lymphocytes. Naturally occurring PTH levels may also be
CC measured in vitro
XX
XX Sequence 34 AA;
SQ
Query Match 90.0%; Score 148.5; DB 2; Length 34;
Best Local Similarity 88.2%; Pred. No. 2.2e-13;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;
QY 1 SVSEIQ-XHNXGKHLNSXRVWLKKLQDVHNY 33
DB 1 SVSEIQLLHNLGKHLNSLRSRVWLKKLQDVHNY 34
RESULT 6
AA07922
ID AAR07922 standard; protein; 34 AA.
XX
AC AAR07922;
XX
XX 18-FEB-1991 (first entry)
DT
XX
XX Human parathyroid hormone analogue, Tyr34 hPTH(7-34).
DE
XX Osteoporosis; hypercalcemia; hyperparathyroidism; hypertension.
KW
XX Homo sapiens.
OS
XX US4968669-A.
PN
XX
XX 06-NOV-1990.
PD
XX
XX 21-APR-1989; 89US-00341597.
PF
XX 09-MAY-1988; 88US-00191512.
PR
XX
XX

PA (MERI) MERCK & CO INC.
XX
PI Rosenblatt M, Chorev M;
XX
XX WPI; 1990-354642/47.
DR
XX New parathyroid hormone analogues - which inhibit hormone activity by
FT binding receptors while not producing second messenger molecules.
FT
XX Claim 1; Col 8; 6pp; English.
PS
XX Peptide analogues have high affinity for PTH cell surface receptors, but
CC do not stimulate production of secondary messenger molecules. They may be
CC used in inhibition of PTH action, and in diagnosis and treatment of
CC osteoporosis, hypercalcemia and hyperparathyroidism. Analogues may also
CC be used in treatment of tumours and other cells overproducing peptide
CC hormone-like substances, and immune diseases eg. allergic inflammation
CC and hyperactive lymphocytes. Naturally occurring PTH levels may also be
CC measured in vitro
XX
XX Sequence 34 AA;
SQ
Query Match 90.0%; Score 148.5; DB 2; Length 34;
Best Local Similarity 88.2%; Pred. No. 2.2e-13;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;
QY 1 SVSEIQ-XHNXGKHLNSXRVWLKKLQDVHNY 33
DB 1 SVSEIQLLHNLGKHLNSLRSRVWLKKLQDVHNY 34
RESULT 7
AAW20003
ID AAW20003 standard; peptide; 34 AA.
XX
AC AAW20003;
XX
XX 28-AUG-1997 (first entry)
DT
XX Cyclised [Nle 8,18, Tyr 34] human parathyroid hormone (1-34) amide.
DE
XX
XX Parathyroid hormone; PTH; amino terminus; cyclic; analogue;
KW adenylate cyclase activity; bone growth; osteoporosis; fracture;
XX antiresorptive therapy.
XX
XX Homo sapiens.
OS
XX
FH Key Location/Qualifiers
FT Modified-site 8 /label= Nle
FT /note= "wild-type Met replaced by Nle"
FT Modified-site 18 /label= Nle
FT /note= "wild-type Met replaced by Nle"
FT Misc-difference 26 /note= "joined via amide bond to residue 30"
FT Misc-difference 30 /note= "joined via amide bond to residue 26"
FT Modified-site 34 /label= substitution
FT /note= "wild-type Phe replaced by amidated Lys"
XX
XX WO9640193-A1.
PN
XX
XX 19-DEC-1996.
PD
XX
XX 06-JUN-1996; 96WO-US009674.
PF
XX
XX 07-JUN-1995; 95US-00488105.
PR
XX (BETH-) BETH ISRAEL HOSPITAL ASSOC.
PA
XX
XX Chorev M, Rosenblatt M;
PI

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XX DR WPI; 1997-051884/05.
XX
XX New cyclic analogues of parathyroid hormone - having di:sulphide or amide
XX PT bond between residues 13 and 17 and/or between residues 26 and 30, useful
XX PT for treating osteoporosis and bone fractures.
XX PS Claim 6; Page; 23pp; English.
XX CC
XX AAW20003 is a cyclised peptide derived from the N-terminal sequence of
XX human parathyroid hormone (PTH). The peptide is able to bind to PTH
XX receptors and stimulate adenylate cyclase activity. Cyclised PTH peptides
XX stimulate bone growth and thus are useful in the treatment of
XX osteoporosis and bone fractures. Optionally they may be administered
XX concurrently with antiresorptive therapy (e.g. bisphosphonate and
XX calcitonin). N.B. sequence not given in the specification, created from
XX known sequence of amino acids 1-34 of human PTH
XX SQ Sequence 34 AA;
XX Query Match 90.0%; Score 148.5; DB 2; Length 34;
XX Best Local Similarity 94.1%; Pred. No. 2.2e-13;
XX Matches 32; Conservative 0; Mismatches 1; Indels 1; Gaps 1;
XX
XX QY 1 SVSEIQ-XHNXGKHLNSXERVWLKKLQDVHNY 33
XX ||||| ||| ||||| ||||| ||||| ||||| |||||
XX Db 1 SVSEIQLXHNLGKHLNSXERVWLKKLQDVHNY 34
XX
XX RESULT 8
XX AAW19997
XX ID AAW19997 standard; peptide; 34 AA.
XX AC AAW19997;
XX DT 28-AUG-1997 (first entry)
XX DE Cyclised [Nle 8,18, Tyr 34] human parathyroid hormone (1-34) amide.
XX KW Parathyroid hormone; PTH; amino terminus; cyclic; analogue;
XX KW adenylate cyclase activity; bone growth; osteoporosis; fracture;
XX KW antiresorptive therapy.
XX OS Homo sapiens.
XX
XX Key Location/Qualifiers
XX FH Modified-site 8 /label= Nle
XX FT /note= "wild-type Met replaced by Nle"
XX FT Misc-difference 13 /note= "wild-type Met replaced by Nle"
XX FT Misc-difference 17 /note= "joined via amide bond to residue 17"
XX FT Misc-difference 17 /note= "joined via amide bond to residue 13"
XX FT Modified-site 18 /label= Nle
XX FT /note= "wild-type Met replaced by Nle"
XX FT Modified-site 26 /label= Nle
XX FT /note= "wild-type Met replaced by Nle"
XX FT Modified-site 34 /label= substitution
XX FT /note= "wild-type Phe replaced by amidated Lys"
XX
XX WO9640193-A1.
XX PN 19-DEC-1996.
XX PD
XX PF 06-JUN-1996; 96WO-US009674.
XX PR 07-JUN-1995; 95US-00488105.
XX (BETH-) BETH ISRAEL HOSPITAL ASSOC.
XX PA Chorev M, Rosenblatt M;
XX PI WPI; 1997-051884/05.
XX DR

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XX
XX New cyclic analogues of parathyroid hormone - having di:sulphide or amide
XX PT bond between residues 13 and 17 and/or between residues 26 and 30, useful
XX PT for treating osteoporosis and bone fractures.
XX PS Claim 4; Page; 23pp; English.
XX CC
XX AAW19997 is a cyclised peptide derived from the N-terminal sequence of
XX human parathyroid hormone (PTH). The peptide is able to bind to PTH
XX receptors and stimulate adenylate cyclase activity. Cyclised PTH peptides
XX stimulate bone growth and thus are useful in the treatment of
XX osteoporosis and bone fractures. Optionally they may be administered
XX concurrently with antiresorptive therapy (e.g. bisphosphonate and
XX calcitonin). N.B. sequence not given in the specification, created from
XX known sequence of amino acids 1-34 of human PTH
XX SQ Sequence 34 AA;
XX Query Match 90.0%; Score 148.5; DB 2; Length 34;
XX Best Local Similarity 94.1%; Pred. No. 2.2e-13;
XX Matches 32; Conservative 0; Mismatches 1; Indels 1; Gaps 1;
XX
XX QY 1 SVSEIQ-XHNXGKHLNSXERVWLKKLQDVHNY 33
XX ||||| ||| ||||| ||||| ||||| ||||| |||||
XX Db 1 SVSEIQLXHNLGKHLNSXERVWLKKLQDVHNY 34
XX
XX RESULT 9
XX AAW20009
XX ID AAW20009 standard; peptide; 34 AA.
XX AC AAW20009;
XX DT 28-AUG-1997 (first entry)
XX DE Cyclised [Nle 8,18, Tyr 34] human parathyroid hormone (1-34) amide.
XX KW Parathyroid hormone; PTH; amino terminus; cyclic; analogue;
XX KW adenylate cyclase activity; bone growth; osteoporosis; fracture;
XX KW antiresorptive therapy.
XX OS Homo sapiens.
XX
XX Key Location/Qualifiers
XX FH Modified-site 8 /label= Nle
XX FT /note= "wild-type Met replaced by Nle"
XX FT Misc-difference 13 /note= "wild-type Met replaced by Nle"
XX FT Misc-difference 17 /note= "joined via amide bond to residue 17"
XX FT Misc-difference 17 /note= "joined via amide bond to residue 13"
XX FT Modified-site 18 /label= Nle
XX FT /note= "wild-type Met replaced by Nle"
XX FT Modified-site 26 /label= Nle
XX FT /note= "wild-type Met replaced by Nle"
XX FT Modified-site 30 /note= "joined via amide bond to residue 30"
XX FT Modified-site 34 /note= "joined via amide bond to residue 26"
XX FT /label= substitution
XX FT /note= "wild-type Phe replaced by amidated Lys"
XX
XX WO9640193-A1.
XX PN 19-DEC-1996.
XX PD
XX PF 06-JUN-1996; 96WO-US009674.
XX PR 07-JUN-1995; 95US-00488105.
XX (BETH-) BETH ISRAEL HOSPITAL ASSOC.
XX PA Chorev M, Rosenblatt M;
XX PI

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XX WPI; 1997-051884/05.
XX New cyclic analogues of parathyroid hormone - having di:sulphide or amide
PT bond between residues 13 and 17 and/or between residues 26 and 30, useful
PT for treating osteoporosis and bone fractures.
XX
XX Claim 8; Page; 23pp; English.
XX
XX AAW20009 is a cyclised peptide derived from the N-terminal sequence of
CC human parathyroid hormone (PTH). The peptide is able to bind to PTH
CC receptors and stimulate adenylate cyclase activity. Cyclised PTH peptides
CC stimulate bone growth and thus are useful in the treatment of
CC osteoporosis and bone fractures. Optionally they may be administered
CC concurrently with anti-resorptive therapy (e.g. bisphosphonate and
CC calcitonin). N.B. sequence not given in the specification, created from
CC known sequence of amino acids 1-34 of human PTH
XX
SQ Sequence 34 AA;

Query Match 90.0%; Score 148.5; DB 2; Length 34;
Best Local Similarity 94.1%; Pred. No. 2.2e-13;
Matches 32; Conservative 0; Mismatches 1; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKXGHLNSKXRVWLRKKLQDVHNY 33
Db 1 SVSEIQ-LXHNKXGHLNSKXRVWLRKKLQDVHNY 34

- RESULT 10
AAW17940
ID AAW17940 standard; peptide; 34 AA.
XX
AC AAW17940;
XX
DT 29-JUL-1997 (first entry)
XX
DE Human PTH analogue [Cha7,11, Nle8,18, Tyr34]hPTH(1-34)NH2.
XX
KW Parathyroid hormone; osteoporosis; agonist; PTH; human;
KW anti-resorptive therapy; bone fracture.
XX
OS Homo sapiens.
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 7 /label= OTHER
FT /note= "Cyclohexylalanine (Cha)"
FT Modified-site 8 /label= Nle
FT Modified-site 11 /label= Nle
FT /label= OTHER
FT /note= "Cha"
FT Modified-site 18 /label= Nle
FT Modified-site 34 /note= "In amide form"
FT
XX WO9702834-A1.
XX
XX 30-JAN-1997.
XX
XX 03-JUL-1996; 96WO-US011292.
XX
XX 13-JUL-1995; 95US-0001105P.
XX 06-SEP-1995; 95US-0003305P.
XX 29-MAR-1996; 96US-00626186.
XX (BIOM-) BIOMEASURE INC.
XX
XX Dong ZX;
XX
XX WPI; 1998-399065/34.

DR WPI; 1997-118819/11.
XX
XX New variants of human parathyroid hormone 1-34 peptide - which stimulate
PT bone growth and are used for treatment of osteoporosis and bone fracture.
PT
XX Claim 5; Page; 33pp; English.
XX
XX The present sequence is a specific example of a human parathyroid hormone
CC (hPTH) analogue from fragment 1-34 in which at least one of the amino
CC acid residues at positions 7, 11, 23, 24, 27, 28 and 31 is
CC cyclohexylalanine (Cha). In this example the Leu residue at position 7
CC and 11 in the wild-type have been substituted by Cha, and the Met residue
CC at position 8 and 18 in the wild type have been substituted by Nle. The
CC hPTH analogues stimulate bone growth and so are useful in human or
CC veterinary medicine for treatment of osteoporosis and bone fracture,
CC optionally in conjunction with anti-resorptive therapy (bisphosphonates
CC and calcitonin). N.B. The present sequence does not appear in the
CC specification. It corresponds to the known hPTH 1-34 fragment with the
CC modifications as stated in the claim
XX
SQ Sequence 34 AA;

Query Match 90.0%; Score 148.5; DB 2; Length 34;
Best Local Similarity 97.1%; Pred. No. 2.2e-13;
Matches 33; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKXGHLNSKXRVWLRKKLQDVHNY 33
Db 1 SVSEIQXHNKXGHLNSKXRVWLRKKLQDVHNY 34

RESULT 11
AAW67275
ID AAW67275 standard; peptide; 34 AA.
XX
AC AAW67275;
XX
DT 22-DEC-1998 (first entry)
XX
DE Parathyroid hormone analogue #2.
XX
KW Parathyroid hormone; parathormone; bone growth; bone fracture;
KW osteoporosis; anti-resorptive therapy; calcitonin.
XX
OS Synthetic.
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Modified-site 7 /note= "1-amino-1-cyclohexanecarboxylic acid"
FT Modified-site 8 /label= Nle
FT Modified-site 11 /note= "1-amino-1-cyclohexanecarboxylic acid"
FT Modified-site 18 /label= Nle
FT Modified-site 34 /note= "C-terminal amide"
FT
XX WO9830590-A2.
XX
XX 16-JUL-1998.
XX
XX 08-DEC-1997; 97WO-US022498.
XX
XX 07-JAN-1997; 97US-00779768.
XX 07-MAR-1997; 97US-00813534.
XX (BIOM-) BIOMEASURE INC.
XX
XX Dong ZX;
XX
XX WPI; 1998-399065/34.


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FT      /label= OTHER
FT      /note= "OTHER-cyclohexylalanine"
FT      18
FT      /label= Nle
FT      /label= Nle
FT      34
FT      /note= "C-terminal amide"
FT      34
FT      /note= "C-terminal amide"
FT      34
FT      /note= "wild-type Phe substituted by Tyr"
FT      34
FT      /note= "wild-type Phe substituted by Tyr"
FT      34
XX      WO9957139-A2.
XX      11-NOV-1999.
XX      03-MAY-1999; 99WO-US009521.
XX      05-MAY-1999; 99WO-US009521.
XX      05-MAY-1999; 98US-00072956.
XX      (SCRC ) SOC CONSEILS RECH & APPL SCI.
XX      Choev M, Dong ZX, Rosenblatt M;
XX      WPI; 2000-038790/03.
XX      New parathyroid hormone analogs, used for treating e.g. abnormal CNS or
XX      PT pancreatic functions, abnormal mineral metabolism and homeostasis, male
XX      PT infertility, abnormal blood pressure or hypothalamic disease.
XX      PS Claim 11; Page 38; 49pp; English.
XX      The present invention provides a number of parathyroid hormone (PTH) or
XX      CC parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2
XX      CC receptor agonists or antagonists and can be used in the treatment of
XX      CC disorders resulting from altered or excessive action of the PTH2
XX      CC receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,
XX      CC divergence from normal mineral metabolism and homeostasis, male
XX      CC infertility, abnormal blood pressure or a hypothalamic disease. The
XX      CC present sequence is a peptide analogue of the invention
XX      SQ Sequence 34 AA;
XX      Query Match 90.0%; Score 148.5; DB 3; Length 34;
XX      Best Local Similarity 94.1%; Pred. No. 2.2e-13;
XX      Matches 32; Conservative 0; Mismatches 1; Indels 1; Gaps 1;
XX      QY 1 SVSEIQ-XHNKXGHLNSXERVELRKKLQDVHNY 33
XX      Db 1 SVSEIQXVHNKXGHLNSXERVELRKKLQDVHNY 34
XX      RESULT 14
XX      ABJ10721
XX      ID ABJ10721 standard; peptide; 34 AA.
XX      AC ABJ10721;
XX      02-DEC-2002 (first entry)
XX      Human parathyroid hormone analogue #17.
XX      Human; parathyroid hormone; parathyroid hormone-related protein; PTH;
XX      KW PTHrP; analogue; abnormal CNS function; pancreatic function;
XX      KW mineral metabolism; male infertility; abnormal blood pressure;
XX      KW hypothalamic disease.
XX      OS Homo sapiens.
XX      OS Synthetic.
XX      FH Key Location/Qualifiers
XX      FT Modified-site 8 /note= "D-form residue"
XX      FT Modified-site 18 /label= Nle
XX      FT Modified-site 34

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FT      /note= "C-terminal amide"
FT      34
FT      /note= "wild-type Phe substituted by Tyr"
FT      34
XX      WO9957139-A2.
XX      11-NOV-1999.
XX      03-MAY-1999; 99WO-US009521.
XX      05-MAY-1999; 98US-00072956.
XX      (SCRC ) SOC CONSEILS RECH & APPL SCI.
XX      Choev M, Dong ZX, Rosenblatt M;
XX      WPI; 2000-038790/03.
XX      New parathyroid hormone analogs, used for treating e.g. abnormal CNS or
XX      PT pancreatic functions, abnormal mineral metabolism and homeostasis, male
XX      PT infertility, abnormal blood pressure or hypothalamic disease.
XX      PS Claim 11; Page 38; 49pp; English.
XX      The present invention provides a number of parathyroid hormone (PTH) or
XX      CC parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2
XX      CC receptor agonists or antagonists and can be used in the treatment of
XX      CC disorders resulting from altered or excessive action of the PTH2
XX      CC receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,
XX      CC divergence from normal mineral metabolism and homeostasis, male
XX      CC infertility, abnormal blood pressure or a hypothalamic disease. The
XX      CC present sequence is a peptide analogue of the invention
XX      SQ Sequence 34 AA;
XX      Query Match 90.0%; Score 148.5; DB 3; Length 34;
XX      Best Local Similarity 91.2%; Pred. No. 2.2e-13;
XX      Matches 31; Conservative 0; Mismatches 2; Indels 1; Gaps 1;
XX      QY 1 SVSEIQ-XHNKXGHLNSXERVELRKKLQDVHNY 33
XX      Db 1 SVSEIQLVHNKXGHLNSXERVELRKKLQDVHNY 34
XX      RESULT 15
XX      ABJ10718
XX      ID ABJ10718 standard; peptide; 34 AA.
XX      AC ABJ10718;
XX      02-DEC-2002 (first entry)
XX      Human parathyroid hormone analogue #14.
XX      Human; parathyroid hormone; parathyroid hormone-related protein; PTH;
XX      KW PTHrP; analogue; abnormal CNS function; pancreatic function;
XX      KW mineral metabolism; male infertility; abnormal blood pressure;
XX      KW hypothalamic disease.
XX      OS Homo sapiens.
XX      OS Synthetic.
XX      FH Key Location/Qualifiers
XX      FT Modified-site 7 /label= OTHER
XX      FT Modified-site 8 /note= "OTHER=cyclohexylalanine"
XX      FT Misc-difference 8 /note= "D-form residue"
XX      FT Modified-site 11 /label= OTHER
XX      FT Modified-site 18 /note= "OTHER=cyclohexylalanine"
XX      FT Modified-site 18 /label= Nle

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XX WO9957139-A2.
XX 11-NOV-1999.
XX 03-MAY-1999; 99WO-US009521.
XX 05-MAY-1999; 98US-00072956.
XX (SCRC) SOC CONSEILS RECH & APPL SCI.
XX Chorev M, Dong ZX, Rosenblatt M;
XX WPI; 2000-038790/03.
XX New parathyroid hormone analogs, used for treating e.g. abnormal CNS or
XX pancreatic functions, abnormal mineral metabolism and homeostasis, male
XX infertility, abnormal blood pressure or hypothalamic disease.
XX Claim 11; Page 39; 49pp; English.
XX The present invention provides a number of parathyroid hormone (PTH) or
XX parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2
XX receptor agonists or antagonists and can be used in the treatment of
XX disorders resulting from altered or excessive action of the PTH2
XX receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,
XX divergence from normal mineral metabolism and homeostasis, male
XX infertility, abnormal blood pressure or a hypothalamic disease. The
XX present sequence is a peptide analogue of the invention
XX SQ Sequence 34 AA;
Query Match 90.0%; Score 148.5; DB 3; Length 34;
Best Local Similarity 97.1%; Pred. No. 2.2e-13;
Matches 33; Conservative 0; Mismatches 0; Indels 1; Gaps 1;
QY 1 SVSEIQ-XHNXGKHLNSXERVELRKKLQDVHNY 33
DB 1 SVSEIQLXHNXGKHLNSXERVELRKKLQDVHNY 34
RESULT 18
ABJ10715
ID ABJ10715 standard; peptide; 34 AA.
XX AC ABJ10715;
XX DT 02-DEC-2002 (first entry)
XX DE Human parathyroid hormone analogue #11.
XX Human; parathyroid hormone; parathyroid hormone-related protein; PTH;
XX PTHrP; analogue; abnormal CNS function; pancreatic function;
XX mineral metabolism; male infertility; abnormal blood pressure;
XX hypothalamic disease.
XX Homo sapiens.
XX OS Synthetic.
XX FH Key Location/Qualifiers
XX FT Modified-site 7 /label= OTHER
XX FT /note= "OTHER-cyclohexylalanine"
XX FT Misc-difference 8 /note= "D-form residue"
XX FT Modified-site 11 /label= OTHER
XX FT /note= "OTHER-cyclohexylalanine"
XX FT Modified-site 18 /label= Nle
XX FT Modified-site 34 /note= "C-terminal amide"
XX FT Misc-difference 34

FT XX /note= "wild-type Phe substituted by Tyr"
XX WO9957139-A2.
XX 11-NOV-1999.
XX 03-MAY-1999; 99WO-US009521.
XX 05-MAY-1998; 98US-00072956.
XX (SCRC) SOC CONSEILS RECH & APPL SCI.
XX Chorev M, Dong ZX, Rosenblatt M;
XX WPI; 2000-038790/03.
XX New parathyroid hormone analogs, used for treating e.g. abnormal CNS or
XX pancreatic functions, abnormal mineral metabolism and homeostasis, male
XX infertility, abnormal blood pressure or hypothalamic disease.
XX Claim 11; Page 38; 49pp; English.
XX The present invention provides a number of parathyroid hormone (PTH) or
XX parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2
XX receptor agonists or antagonists and can be used in the treatment of
XX disorders resulting from altered or excessive action of the PTH2
XX receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,
XX divergence from normal mineral metabolism and homeostasis, male
XX infertility, abnormal blood pressure or a hypothalamic disease. The
XX present sequence is a peptide analogue of the invention
XX SQ Sequence 34 AA;
Query Match 90.0%; Score 148.5; DB 3; Length 34;
Best Local Similarity 94.1%; Pred. No. 2.2e-13;
Matches 32; Conservative 0; Mismatches 1; Indels 1; Gaps 1;
QY 1 SVSEIQ-XHNXGKHLNSXERVELRKKLQDVHNY 33
DB 1 SVSEIQXHNXGKHLNSXERVELRKKLQDVHNY 34
RESULT 19
ABJ10734
ID ABJ10734 standard; peptide; 34 AA.
XX AC ABJ10734;
XX DT 02-DEC-2002 (first entry)
XX DE Human parathyroid hormone analogue #30.
XX Human; parathyroid hormone; parathyroid hormone-related protein; PTH;
XX PTHrP; analogue; abnormal CNS function; pancreatic function;
XX mineral metabolism; male infertility; abnormal blood pressure;
XX hypothalamic disease.
XX Homo sapiens.
XX OS Synthetic.
XX FH Key Location/Qualifiers
XX FT Modified-site 7 /label= OTHER
XX FT /note= "OTHER-cyclohexylalanine"
XX FT Modified-site 8 /label= Abu
XX FT /note= "D-form residue"
XX FT Modified-site 11 /label= OTHER
XX FT /note= "OTHER-cyclohexylalanine"
XX FT Modified-site 18 /label= Nle
XX FT Modified-site 34

PR 05-MAY-1998; 98US-00072956.
XX (SCRC) SOC CONSEILS RECH & APPL SCI.
PA Chorev M, Dong ZX, Rosenblatt M;
XX WPI; 2000-038790/03.
XX
XX New parathyroid hormone analogs, used for treating e.g. abnormal CNS or
PT pancreatic functions, abnormal mineral metabolism and homeostasis, male
PT infertility, abnormal blood pressure or hypothalamic disease.
XX
XX Claim 11; Page 40; 49pp; English.
XX
XX The present invention provides a number of parathyroid hormone (PTH) or
CC parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2
CC receptor agonists or antagonists and can be used in the treatment of
CC disorders resulting from altered or excessive action of the PTH2
CC receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,
CC divergence from normal mineral metabolism and homeostasis, male
CC infertility, abnormal blood pressure or a hypothalamic disease. The
CC present sequence is a peptide analogue of the invention
XX
XX Sequence 34 AA;
SQ
Query Match 90.0%; Score 148.5; DB 3; Length 34;
Best Local Similarity 91.2%; Pred. No. 2.2e-13;
Matches 31; Conservative 0; Mismatches 2; Indels 1; Gaps 1;
- QY 1 SVSEIQ-XHNXGKHLNSXERVEWLRKQLQDVHNY 33
Db 1 SVSEIQLXHNLKGHLNSMERVEWLRKQLQDVHNY 34
RESULT 22
ABU10738
ID ABU10738 standard; peptide; 34 AA.
XX AC ABU10738;
XX
XX 02-DEC-2002 (first entry)
XX Human parathyroid hormone analogue #34.
XX Human; parathyroid hormone; parathyroid hormone-related protein; PTH;
KW PTHrP; analogue; abnormal CNS function; pancreatic function;
KW mineral metabolism; male infertility; abnormal blood pressure;
KW hypothalamic disease.
XX Homo sapiens.
OS Synthetic.
XX
XX Key Location/Qualifiers
FT Modified-site 7 /label= OTHER
FT /note= "OTHER=cyclohexylalanine"
FT Modified-site 8 /label= OTHER
FT /note= "des-Met"
FT Modified-site 11 /label= OTHER
FT /note= "OTHER=cyclohexylalanine"
FT Modified-site 18 /label= OTHER
FT /note= "OTHER=des-Met"
FT Modified-site 34 /note= "C-terminal amide"
FT Misc-difference 34 /note= "wild-type Phe substituted by Tyr"
XX
XX WO9957139-A2.
XX 11-NOV-1999.
PD

XX 03-MAY-1999; 99WO-US009521.
XX
XX 05-MAY-1998; 98US-00072956.
XX (SCRC) SOC CONSEILS RECH & APPL SCI.
XX Chorev M, Dong ZX, Rosenblatt M;
XX WPI; 2000-038790/03.
XX
XX New parathyroid hormone analogs, used for treating e.g. abnormal CNS or
PT pancreatic functions, abnormal mineral metabolism and homeostasis, male
PT infertility, abnormal blood pressure or hypothalamic disease.
XX
XX Claim 11; Page 39; 49pp; English.
XX
XX The present invention provides a number of parathyroid hormone (PTH) or
CC parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2
CC receptor agonists or antagonists and can be used in the treatment of
CC disorders resulting from altered or excessive action of the PTH2
CC receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,
CC divergence from normal mineral metabolism and homeostasis, male
CC infertility, abnormal blood pressure or a hypothalamic disease. The
CC present sequence is a peptide analogue of the invention
XX
XX Sequence 34 AA;
SQ
Query Match 90.0%; Score 148.5; DB 3; Length 34;
Best Local Similarity 97.1%; Pred. No. 2.2e-13;
Matches 33; Conservative 0; Mismatches 0; Indels 1; Gaps 1;
QY 1 SVSEIQ-XHNXGKHLNSXERVEWLRKQLQDVHNY 33
Db 1 SVSEIQXXHNXGKHLNSXERVEWLRKQLQDVHNY 34
RESULT 23
ABU10744
ID ABU10744 standard; peptide; 34 AA.
XX AC ABU10744;
XX
XX 02-DEC-2002 (first entry)
XX Human parathyroid hormone analogue #40.
XX Human; parathyroid hormone; parathyroid hormone-related protein; PTH;
KW PTHrP; analogue; abnormal CNS function; pancreatic function;
KW mineral metabolism; male infertility; abnormal blood pressure;
KW hypothalamic disease.
XX Homo sapiens.
OS Synthetic.
XX
XX Key Location/Qualifiers
FT Modified-site 7 /label= OTHER
FT /note= "OTHER=cyclohexylalanine"
FT Modified-site 11 /label= OTHER
FT /note= "OTHER=cyclohexylalanine"
FT Modified-site 18 /label= OTHER
FT /note= "OTHER=des-Met"
FT Modified-site 34 /note= "C-terminal amide"
FT Misc-difference 34 /note= "wild-type Phe substituted by Tyr"
XX
XX WO9957139-A2.
XX 11-NOV-1999.
PD

XX WPI; 2000-038790/03.
XX New parathyroid hormone analogs, used for treating e.g. abnormal CNS or
XX pancreatic functions, abnormal mineral metabolism and homeostasis, male
PT infertility, abnormal blood pressure or hypothalamic disease.
PT
XX Claim 11; Page 39; 49pp; English.
XX
XX The present invention provides a number of parathyroid hormone (PTH) or
XX parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2
XX receptor agonists or antagonists and can be used in the treatment of
XX disorders resulting from altered or excessive action of the PTH2
XX receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,
XX divergence from normal mineral metabolism and homeostasis, male
XX infertility, abnormal blood pressure or a hypothalamic disease. The
XX present sequence is a peptide analogue of the invention
XX
SQ Sequence 34 AA;
Query Match 90.0%; Score 148.5; DB 3; Length 34;
Best Local Similarity 94.1%; Pred. No. 2.2e-13;
Matches 32; Conservative 0; Mismatches 1; Indels 1; Gaps 1;
QY 1 SVSEIQ-XHNKGKHLNSXERVEWLKRLQDVHNY 33
DB 1 SVSEIQLXHNKGKHLNSXERVEWLKRLQDVHNY 34
RESULT 26
ABJ10732
ID ABJ10732 standard; peptide; 34 AA.
AC ABJ10732;
XX
XX 02-DEC-2002 (first entry)
XX Human parathyroid hormone analogue #28.
XX
XX Human; parathyroid hormone; parathyroid hormone-related protein; PTH;
XX PTHrP; analogue; abnormal CNS function; pancreatic function;
XX mineral metabolism; male infertility; abnormal blood pressure;
XX hypothalamic disease.
XX Homo sapiens.
XX Synthetic.
XX
XX Key Location/Qualifiers
XX Misc-difference 8 /note= "D-form residue"
XX Modified-site 18 /label= Nle
XX Modified-site 34 /label= Nle
XX Misc-difference 34 /note= "C-terminal amide"
XX /note= "wild-type Phe substituted by Tyr"
XX
XX WO9957139-A2.
XX
XX 11-NOV-1999.
XX
XX 03-MAY-1999; 99WO-US009521.
XX
XX 05-MAY-1998; 98US-00072956.
XX (SCRC) SOC CONSEILS RECH & APPL SCI.
XX
XX Choev M, Dong ZX, Rosenblatt M;
XX WPI; 2000-038790/03.
XX
XX New parathyroid hormone analogs, used for treating e.g. abnormal CNS or
XX pancreatic functions, abnormal mineral metabolism and homeostasis, male

PT infertility, abnormal blood pressure or hypothalamic disease.
XX
XX Claim 11; Page 38; 49pp; English.
XX
XX The present invention provides a number of parathyroid hormone (PTH) or
XX parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2
XX receptor agonists or antagonists and can be used in the treatment of
XX disorders resulting from altered or excessive action of the PTH2
XX receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,
XX divergence from normal mineral metabolism and homeostasis, male
XX infertility, abnormal blood pressure or a hypothalamic disease. The
XX present sequence is a peptide analogue of the invention
XX
SQ Sequence 34 AA;
Query Match 90.0%; Score 148.5; DB 3; Length 34;
Best Local Similarity 91.2%; Pred. No. 2.2e-13;
Matches 31; Conservative 0; Mismatches 2; Indels 1; Gaps 1;
QY 1 SVSEIQ-XHNKGKHLNSXERVEWLKRLQDVHNY 33
DB 1 SVSEIQLWHNLGKHLNSXERVEWLKRLQDVHNY 34
RESULT 27
ABJ10708
ID ABJ10708 standard; peptide; 34 AA.
XX
XX AC ABJ10708;
XX
XX 02-DEC-2002 (first entry)
XX Human parathyroid hormone analogue #4.
XX
XX Human; parathyroid hormone; parathyroid hormone-related protein; PTH;
XX PTHrP; analogue; abnormal CNS function; pancreatic function;
XX mineral metabolism; male infertility; abnormal blood pressure;
XX hypothalamic disease.
XX Homo sapiens.
XX Synthetic.
XX
XX Key Location/Qualifiers
XX Modified-site 8 /label= OTHER
XX /note= "OTHER=cyclohexylalanine, D-form residue"
XX Modified-site 18 /label= Nle
XX Modified-site 34 /label= Nle
XX Misc-difference 34 /note= "C-terminal amide"
XX /note= "wild-type Phe substituted by Tyr"
XX
XX WO9957139-A2.
XX
XX 11-NOV-1999.
XX
XX 03-MAY-1999; 99WO-US009521.
XX
XX 05-MAY-1998; 98US-00072956.
XX (SCRC) SOC CONSEILS RECH & APPL SCI.
XX
XX Choev M, Dong ZX, Rosenblatt M;
XX WPI; 2000-038790/03.
XX
XX New parathyroid hormone analogs, used for treating e.g. abnormal CNS or
XX pancreatic functions, abnormal mineral metabolism and homeostasis, male
XX infertility, abnormal blood pressure or hypothalamic disease.
XX
XX Claim 11; Page 38; 49pp; English.
XX

CC The present invention provides a number of parathyroid hormone (PTH) or
CC parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2
CC receptor agonists or antagonists and can be used in the treatment of
CC disorders resulting from altered or excessive action of the PTH2
CC receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,
CC divergence from normal mineral metabolism and homeostasis, male
CC infertility, abnormal blood pressure or a hypothalamic disease. The
CC present sequence is a peptide analogue of the invention
XX Sequence 34 AA;
SQ

Query Match 90.0%; Score 148.5; DB 3; Length 34;
Best Local Similarity 94.1%; Pred. No. 2.2e-13;
Matches 32; Conservative 0; Mismatches 1; Indels 1; Gaps 1;
QY 1 SVSEIQ-XHNXGKHLNSXERVELRKKLQDVHNY 33
Db 1 SVSEIQXHNXGKHLNSXERVELRKKLQDVHNY 34

RESULT 28
ABJ10711
ID ABJ10711 standard; peptide; 34 AA.
XX
XX ABJ10711;
XX
DT 02-DEC-2002 (first entry)
XX
DE Human parathyroid hormone analogue #7.
XX
KW Human; parathyroid hormone; parathyroid hormone-related protein; PTH;
KW PTHrP; analogue; abnormal CNS function; pancreatic function;
KW mineral metabolism; male infertility; abnormal blood pressure;
KW hypothalamic disease.
XX
XX Homo sapiens.
OS Synthetic.
XX

Key Location/Qualifiers
FT Modified-site 8 /label= Abu
FT /note= "D-form residue"
FT Modified-site 18 /label= Nle
FT Modified-site 34 /note= "C-terminal amide"
FT Misc-difference 34 /note= "wild-type Phe substituted by Tyr"
XX
XX WO9957139-A2.
XX
XX 11-NOV-1999.
XX
XX 03-MAY-1999; 99WO-US009521.
XX
XX 05-MAY-1998; 98US-00072956.
XX
XX (SCRC) SOC CONSEILS RECH & APPL SCI.
XX
XX Chorev M, Dong ZX, Rosenblatt M;
XX
XX WPI; 2000-038790/03.
XX
XX New parathyroid hormone analogs, used for treating e.g. abnormal CNS or
XX pancreatic functions, abnormal mineral metabolism and homeostasis, male
XX infertility, abnormal blood pressure or hypothalamic disease.
XX
XX Claim 11; Page 38; 49pp; English.
XX
XX The present invention provides a number of parathyroid hormone (PTH) or
XX parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2
XX receptor agonists or antagonists and can be used in the treatment of
XX disorders resulting from altered or excessive action of the PTH2

CC receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,
CC divergence from normal mineral metabolism and homeostasis, male
CC infertility, abnormal blood pressure or a hypothalamic disease. The
CC present sequence is a peptide analogue of the invention
XX Sequence 34 AA;
SQ

Query Match 90.0%; Score 148.5; DB 3; Length 34;
Best Local Similarity 94.1%; Pred. No. 2.2e-13;
Matches 32; Conservative 0; Mismatches 1; Indels 1; Gaps 1;
QY 1 SVSEIQ-XHNXGKHLNSXERVELRKKLQDVHNY 33
Db 1 SVSEIQXHNXGKHLNSXERVELRKKLQDVHNY 34

RESULT 29
ABJ10731
ID ABJ10731 standard; peptide; 34 AA.
XX
XX ABJ10731;
XX
DT 02-DEC-2002 (first entry)
XX
DE Human parathyroid hormone analogue #27.
XX
KW Human; parathyroid hormone; parathyroid hormone-related protein; PTH;
KW PTHrP; analogue; abnormal CNS function; pancreatic function;
KW mineral metabolism; male infertility; abnormal blood pressure;
KW hypothalamic disease.
XX
XX Homo sapiens.
OS Synthetic.
XX

Key Location/Qualifiers
FT Modified-site 7 /label= OTHER
FT /note= "OTHER=cyclohexylalanine"
FT Misc-difference 8 /note= "D-form residue"
FT Modified-site 11 /label= OTHER
FT Modified-site 18 /note= "OTHER=cyclohexylalanine"
FT Modified-site 34 /label= Nle
FT Modified-site 34 /note= "C-terminal amide"
FT Misc-difference 34 /note= "wild-type Phe substituted by Tyr"
XX
XX WO9957139-A2.
XX
XX 11-NOV-1999.
XX
XX 03-MAY-1999; 99WO-US009521.
XX
XX 05-MAY-1998; 98US-00072956.
XX
XX (SCRC) SOC CONSEILS RECH & APPL SCI.
XX
XX Chorev M, Dong ZX, Rosenblatt M;
XX
XX WPI; 2000-038790/03.
XX
XX New parathyroid hormone analogs, used for treating e.g. abnormal CNS or
XX pancreatic functions, abnormal mineral metabolism and homeostasis, male
XX infertility, abnormal blood pressure or hypothalamic disease.
XX
XX Claim 11; Page 38; 49pp; English.
XX
XX The present invention provides a number of parathyroid hormone (PTH) or
XX parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2
XX receptor agonists or antagonists and can be used in the treatment of

CC disorders resulting from altered or excessive action of the PTH2
 CC receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,
 CC divergence from normal mineral metabolism and homeostasis, male
 CC infertility, abnormal blood pressure or a hypothalamic disease. The
 CC present sequence is a peptide analogue of the invention
 XX SQ Sequence 34 AA;
 Query Match 90.0%; Score 148.5; DB 3; Length 34;
 Best Local Similarity 97.1%; Pred. No. 2.2e-13;
 Matches 33; Conservative 0; Mismatches 0; Indels 1; Gaps 1;
 QY 1 SVSEIQX-HNXGKHLNSXERVELRKKLQDVHNY 33
 DB 1 SVSEIQXHNXGKHLNSXERVELRKKLQDVHNY 34
 RESULT 30
 ABJ10705
 ID ABJ10705 standard; peptide; 34 AA.
 XX AC ABJ10705;
 XX DT 02-DEC-2002 (first entry)
 XX DE Human parathyroid hormone analogue #1.
 XX KW Human; parathyroid hormone; parathyroid hormone-related protein; PTH;
 KW PTHrP; analogue; abnormal CNS function; pancreatic function;
 KW mineral metabolism; male infertility; abnormal blood pressure;
 KW hypothalamic disease.
 XX OS Homo sapiens.
 XX OS Synthetic.
 XX FH Key Location/Qualifiers
 FT Modified-site 8 /label= Nle
 FT /note= "norleucine, D-form residue"
 FT Modified-site 18 /label= Nle
 FT Modified-site 34 /note= "C-terminal amide"
 FT Misc-difference 34 /note= "wild-type Phe substituted by Tyr"
 XX WO957139-A2.
 XX 11-NOV-1999.
 XX 03-MAY-1999; 99WO-US009521.
 XX 05-MAY-1998; 98US-00072956.
 XX (SCRC) SOC CONSEILS RECH & APPL SCI.
 XX Chorev M, Dong ZX, Rosenblatt M;
 XX WPI; 2000-038790/03.
 XX New parathyroid hormone analogs, used for treating e.g. abnormal CNS or
 PT pancreatic functions, abnormal mineral metabolism and homeostasis, male
 PT infertility, abnormal blood pressure or hypothalamic disease.
 XX Claim 11; Page 38; 49pp; English.
 XX The present invention provides a number of parathyroid hormone (PTH) or
 CC parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2
 CC receptor agonists or antagonists and can be used in the treatment of
 CC disorders resulting from altered or excessive action of the PTH2
 CC receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,
 CC divergence from normal mineral metabolism and homeostasis, male
 CC infertility, abnormal blood pressure or a hypothalamic disease. The

CC present sequence is a peptide analogue of the invention
 XX SQ Sequence 34 AA;
 Query Match 90.0%; Score 148.5; DB 3; Length 34;
 Best Local Similarity 94.1%; Pred. No. 2.2e-13;
 Matches 32; Conservative 0; Mismatches 1; Indels 1; Gaps 1;
 QY 1 SVSEIQX-HNXGKHLNSXERVELRKKLQDVHNY 33
 DB 1 SVSEIQLXHNGLKHLNSXERVELRKKLQDVHNY 34
 RESULT 31
 ABJ10768
 ID ABJ10768 standard; peptide; 34 AA.
 XX AC ABJ10768;
 XX DT 02-DEC-2002 (first entry)
 XX DE Human parathyroid hormone analogue #64.
 XX KW Human; parathyroid hormone; parathyroid hormone-related protein; PTH;
 KW PTHrP; analogue; abnormal CNS function; pancreatic function;
 KW mineral metabolism; male infertility; abnormal blood pressure;
 KW hypothalamic disease.
 XX OS Homo sapiens.
 XX OS Synthetic.
 XX FH Key Location/Qualifiers
 FT Modified-site 7 /label= OTHER
 FT /note= "OTHER=cyclohexylalanine"
 FT Modified-site 8 /label= Nle
 FT /note= "D-form residue"
 FT Modified-site 11 /label= OTHER
 FT /note= "OTHER=cyclohexylalanine"
 FT Modified-site 18 /label= OTHER
 FT /note= "OTHER=des-Met"
 FT Modified-site 34 /note= "C-terminal amide"
 FT Misc-difference 34 /note= "wild-type Phe substituted by Tyr"
 XX WO957139-A2.
 XX 11-NOV-1999.
 XX 03-MAY-1999; 99WO-US009521.
 XX 05-MAY-1998; 98US-00072956.
 XX (SCRC) SOC CONSEILS RECH & APPL SCI.
 XX Chorev M, Dong ZX, Rosenblatt M;
 XX WPI; 2000-038790/03.
 XX New parathyroid hormone analogs, used for treating e.g. abnormal CNS or
 PT pancreatic functions, abnormal mineral metabolism and homeostasis, male
 PT infertility, abnormal blood pressure or hypothalamic disease.
 XX Claim 11; Page 39; 49pp; English.
 XX The present invention provides a number of parathyroid hormone (PTH) or
 CC parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2
 CC receptor agonists or antagonists and can be used in the treatment of
 CC disorders resulting from altered or excessive action of the PTH2
 CC receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,
 CC divergence from normal mineral metabolism and homeostasis, male
 CC infertility, abnormal blood pressure or a hypothalamic disease. The

CC receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,
CC divergence from normal mineral metabolism and homeostasis, male
CC infertility, abnormal blood pressure or a hypothalamic disease. The
CC present sequence is a peptide analogue of the invention
XX
SQ Sequence 34 AA;
Query Match 90.0%; Score 148.5; DB 3; Length 34;
Best Local Similarity 97.1%; Pred. No. 2.2e-13;
Matches 33; Conservative 0; Mismatches 0; Indels 1; Gaps 1;
QY 1 SVSEIQ-XHNXGKHLNSXERVELRKKLQDVHNY 33
Db 1 SVSEIQXXHNXGKHLNSXERVELRKKLQDVHNY 34
RESULT 32
ABJ10777
ID ABJ10777 standard; peptide; 34 AA.
XX
AC ABJ10777;
XX
DT 02-DEC-2002 (first entry)
XX
DE Human parathyroid hormone analogue #73.
XX
KW Human; parathyroid hormone; parathyroid hormone-related protein; PTH;
KW PTHrP; analogue; abnormal CNS function; pancreatic function;
KW mineral metabolism; male infertility; abnormal blood pressure;
KW hypothalamic disease.
XX
OS Homo sapiens.
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 7 /label= OTHER
FT Modified-site 8 /note= "OTHER=cyclohexylalanine"
FT Modified-site 8 /label= Nle
FT Modified-site 11 /note= "D-form residue"
FT Modified-site 11 /label= OTHER
FT Modified-site 18 /note= "OTHER=cyclohexylalanine"
FT Modified-site 18 /label= Nle
FT Modified-site 34 /note= "C-terminal amide"
FT Misc-difference 34 /note= "wild-type Phe substituted by Tyr"
XX
FN WO9557139-A2.
XX
PD 11-NOV-1999.
XX
PF 03-MAY-1999; 99WO-US009521.
XX
PR 05-MAY-1998; 98US-00072956.
XX
PA (SCRC) SOC CONSEILS RECH & APPL SCI.
XX
PI Chorev M, Dong ZX, Rosenblatt M;
XX
DR WPI; 2000-038790/03.
XX
PT New parathyroid hormone analogs, used for treating e.g. abnormal CNS or
PT pancreatic functions, abnormal mineral metabolism and homeostasis, male
PT infertility, abnormal blood pressure or hypothalamic disease.
XX
PS Claim 12; Page 40; 49pp; English.
XX
CC The present invention provides a number of parathyroid hormone (PTH) or
CC parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2

CC receptor agonists or antagonists and can be used in the treatment of
CC disorders resulting from altered or excessive action of the PTH2
CC receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,
CC divergence from normal mineral metabolism and homeostasis, male
CC infertility, abnormal blood pressure or a hypothalamic disease. The
CC present sequence is a peptide analogue of the invention
XX
SQ Sequence 34 AA;
Query Match 90.0%; Score 148.5; DB 3; Length 34;
Best Local Similarity 97.1%; Pred. No. 2.2e-13;
Matches 33; Conservative 0; Mismatches 0; Indels 1; Gaps 1;
QY 1 SVSEIQ-XHNXGKHLNSXERVELRKKLQDVHNY 33
Db 1 SVSEIQXXHNXGKHLNSXERVELRKKLQDVHNY 34
RESULT 33
ABJ10728
ID ABJ10728 standard; peptide; 34 AA.
XX
AC ABJ10728;
XX
DT 02-DEC-2002 (first entry)
XX
DE Human parathyroid hormone analogue #24.
XX
KW Human; parathyroid hormone; parathyroid hormone-related protein; PTH;
KW PTHrP; analogue; abnormal CNS function; pancreatic function;
KW mineral metabolism; male infertility; abnormal blood pressure;
KW hypothalamic disease.
XX
OS Homo sapiens.
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 7 /label= OTHER
FT Modified-site 8 /note= "OTHER=cyclohexylalanine"
FT Misc-difference 8 /note= "D-form residue"
FT Modified-site 11 /label= OTHER
FT Modified-site 18 /note= "OTHER=cyclohexylalanine"
FT Modified-site 18 /label= Nle
FT Modified-site 34 /note= "C-terminal amide"
FT Misc-difference 34 /note= "wild-type Phe substituted by Tyr"
XX
FN WO9557139-A2.
XX
PD 11-NOV-1999.
XX
PF 03-MAY-1999; 99WO-US009521.
XX
PR 05-MAY-1998; 98US-00072956.
XX
PA (SCRC) SOC CONSEILS RECH & APPL SCI.
XX
PI Chorev M, Dong ZX, Rosenblatt M;
XX
DR WPI; 2000-038790/03.
XX
PT New parathyroid hormone analogs, used for treating e.g. abnormal CNS or
PT pancreatic functions, abnormal mineral metabolism and homeostasis, male
PT infertility, abnormal blood pressure or hypothalamic disease.
XX
PS Claim 11; Page 38; 49pp; English.
XX
CC The present invention provides a number of parathyroid hormone (PTH) or

CC parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2
CC receptor agonists or antagonists and can be used in the treatment of
CC disorders resulting from altered or excessive action of the PTH2
CC receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,
CC divergence from normal mineral metabolism and homeostasis, male
CC infertility, abnormal blood pressure or a hypothalamic disease. The
CC present sequence is a peptide analogue of the invention
XX
SQ Sequence 34 AA;

Query Match 90.0%; Score 148.5; DB 3; Length 34;
Best Local Similarity 94.1%; Pred. No. 2.2e-13;
Matches 32; Conservative 0; Mismatches 1; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKXGHLNSXRVWLRKKLQDVHNY 33
||||| ||||||| ||||||| ||||||| |||||||
DB 1 SVSEIQXHNKXGHLNSXRVWLRKKLQDVHNY 34

RESULT 34
ABJ10723
ID ABJ10723 standard; peptide; 34 AA.
XX
AC ABJ10723;

DT 02-DEC-2002 (first entry)

DE Human parathyroid hormone analogue #19.

XX Human; parathyroid hormone; parathyroid hormone-related protein; PTH;
KW PTHrP; analogue; abnormal CNS function; pancreatic function;
KW mineral metabolism; male infertility; abnormal blood pressure;
KW hypothalamic disease.

XX Homo sapiens.
OS Synthetic.

OS Synthetic.

EH Key Location/Qualifiers

FT Modified-site 7 /label= OTHER

FT Modified-site 8 /note= "OTHER=cyclohexylalanine"

FT Modified-site 8 /label= OTHER

FT Modified-site 11 /note= "OTHER=cyclohexylalanine, D-form residue"

FT Modified-site 11 /label= OTHER

FT Modified-site 18 /label= Nle

FT Modified-site 34 /label= Nle

FT Misc-difference 34 /note= "C-terminal amide"

FT /note= "wild-type Phe substituted by Tyr"

XX WO9571139-A2.

XX 11-NOV-1999.

XX 03-MAY-1999; 99WO-US009521.

XX 05-MAY-1998; 98US-00072956.

XX (SCRC) SOC CONSEILS RECH & APPL SCI.

XX Choev M, Dong ZX, Rosenblatt M;

XX WPI; 2000-038790/03.

XX New parathyroid hormone analogs, used for treating e.g. abnormal CNS or

XX pancreatic functions, abnormal mineral metabolism and homeostasis, male

XX infertility, abnormal blood pressure or hypothalamic disease.

XX Claim 11; Page 38; 49pp; English.

XX The present invention provides a number of parathyroid hormone (PTH) or
CC parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2
CC receptor agonists or antagonists and can be used in the treatment of
CC disorders resulting from altered or excessive action of the PTH2
CC receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,
CC divergence from normal mineral metabolism and homeostasis, male
CC infertility, abnormal blood pressure or a hypothalamic disease. The
CC present sequence is a peptide analogue of the invention
XX
SQ Sequence 34 AA;

Query Match 90.0%; Score 148.5; DB 3; Length 34;
Best Local Similarity 97.1%; Pred. No. 2.2e-13;
Matches 33; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKXGHLNSXRVWLRKKLQDVHNY 33
||||| ||||||| ||||||| ||||||| |||||||
DB 1 SVSEIQXHNKXGHLNSXRVWLRKKLQDVHNY 34

RESULT 35
ABJ10765
ID ABJ10765 standard; peptide; 34 AA.

XX
AC ABJ10765;

DT 02-DEC-2002 (first entry)

DE Human parathyroid hormone analogue #61.

XX Human; parathyroid hormone; parathyroid hormone-related protein; PTH;
KW PTHrP; analogue; abnormal CNS function; pancreatic function;
KW mineral metabolism; male infertility; abnormal blood pressure;
KW hypothalamic disease.

XX Homo sapiens.
OS Synthetic.

EH Key Location/Qualifiers

FT Modified-site 7 /label= OTHER

FT Modified-site 8 /note= "OTHER=des-Leu"

FT Modified-site 8 /label= Nle

FT Modified-site 11 /note= "D-form residue"

FT Modified-site 11 /label= OTHER

FT Modified-site 18 /label= Nle

FT Modified-site 34 /label= Nle

FT Misc-difference 34 /note= "C-terminal amide"

FT /note= "wild-type Phe substituted by Tyr"

XX WO9571139-A2.

XX 11-NOV-1999.

XX 03-MAY-1999; 99WO-US009521.

XX 05-MAY-1998; 98US-00072956.

XX (SCRC) SOC CONSEILS RECH & APPL SCI.

XX Choev M, Dong ZX, Rosenblatt M;

XX WPI; 2000-038790/03.

XX New parathyroid hormone analogs, used for treating e.g. abnormal CNS or

XX pancreatic functions, abnormal mineral metabolism and homeostasis, male

XX infertility, abnormal blood pressure or hypothalamic disease.

XX Claim 11; Page 38; 49pp; English.

XX Claim 11; Page 39; 49pp; English.

XX The present invention provides a number of parathyroid hormone (PTH) or

XX parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2

XX receptor agonists or antagonists and can be used in the treatment of

XX disorders resulting from altered or excessive action of the PTH2

XX receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,

XX divergence from normal mineral metabolism and homeostasis, male

XX infertility, abnormal blood pressure or a hypothalamic disease. The

XX present sequence is a peptide analogue of the invention

XX Sequence 34 AA;

Query Match 90.0%; Score 148.5; DB 3; Length 34;

Best Local Similarity 97.1%; Pred. No. 2.2e-13;

Matches 33; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

OY 1 SVSEIQ-XHNXGKHLNSXERVELRKKLQDVHNY 33

DB 1 SVSEIQXHNXGKHLNSXERVELRKKLQDVHNY 34

RESULT 36

ABJ10771

ID ABJ10771 standard; peptide; 34 AA.

AC ABJ10771;

XX

XX 02-DEC-2002 (first entry)

DT Human parathyroid hormone analogue #67.

DE

XX Human; parathyroid hormone; parathyroid hormone-related protein; PTH;

KW PTHrP; analogue; abnormal CNS function; pancreatic function;

KW mineral metabolism; male infertility; abnormal blood pressure;

KW hypothalamic disease.

XX Homo sapiens.

OS Synthetic.

XX

XX Key Location/Qualifiers

FH Misc-difference 8 /note= "D-form residue"

FT Modified-site 18 /label= Nle

FT Modified-site 34 /note= "C-terminal amide"

FT Misc-difference 34 /note= "wild-type Phe substituted by Tyr"

XX WO9557139-A2.

PN 11-NOV-1999.

PD 03-MAY-1999; 99WO-US009521.

PF 05-MAY-1998; 98US-00072956.

PR (SCRC) SOC CONSEILS RECH & APPL SCI.

XX Choev M, Dong ZX, Rosenblatt M;

XX WPI; 2000-038790/03.

XX New parathyroid hormone analogs, used for treating e.g. abnormal CNS or

XX parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2

XX receptor agonists or antagonists and can be used in the treatment of

XX disorders resulting from altered or excessive action of the PTH2

XX receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,

XX divergence from normal mineral metabolism and homeostasis, male

XX infertility, abnormal blood pressure or a hypothalamic disease.

XX Claim 11; Page 40; 49pp; English.

XX The present invention provides a number of parathyroid hormone (PTH) or

XX parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2

XX receptor agonists or antagonists and can be used in the treatment of

XX disorders resulting from altered or excessive action of the PTH2

XX receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,

XX divergence from normal mineral metabolism and homeostasis, male

XX infertility, abnormal blood pressure or a hypothalamic disease. The

XX present sequence is a peptide analogue of the invention

XX Sequence 34 AA;

Query Match 90.0%; Score 148.5; DB 3; Length 34;

Best Local Similarity 94.1%; Pred. No. 2.2e-13;

Matches 32; Conservative 0; Mismatches 1; Indels 1; Gaps 1;

OY 1 SVSEIQ-XHNXGKHLNSXERVELRKKLQDVHNY 33

DB 1 SVSEIQXHNXGKHLNSXERVELRKKLQDVHNY 34

RESULT 37

ABJ10773

ID ABJ10773 standard; peptide; 34 AA.

XX

XX ABJ10773;

XX

XX 02-DEC-2002 (first entry)

DT Human parathyroid hormone analogue #69.

DE

XX Human; parathyroid hormone; parathyroid hormone-related protein; PTH;

KW PTHrP; analogue; abnormal CNS function; pancreatic function;

KW mineral metabolism; male infertility; abnormal blood pressure;

KW hypothalamic disease.

XX Homo sapiens.

OS Synthetic.

XX

XX Key Location/Qualifiers

FH Modified-site 8 /label= OTHER

FT Misc-difference 34 /note= "OTHER-p-benzoyl-phenylalanine, D-form residue"

FT Modified-site 34 /note= "C-terminal amide"

FT Misc-difference 34 /note= "wild-type Phe substituted by Tyr"

XX WO9557139-A2.

PN 11-NOV-1999.

PD 03-MAY-1999; 99WO-US009521.

PF 05-MAY-1998; 98US-00072956.

PR (SCRC) SOC CONSEILS RECH & APPL SCI.

XX Choev M, Dong ZX, Rosenblatt M;

XX WPI; 2000-038790/03.

XX New parathyroid hormone analogs, used for treating e.g. abnormal CNS or

XX parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2

XX receptor agonists or antagonists and can be used in the treatment of

XX disorders resulting from altered or excessive action of the PTH2

XX receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,

XX divergence from normal mineral metabolism and homeostasis, male

XX infertility, abnormal blood pressure or a hypothalamic disease. The

XX present sequence is a peptide analogue of the invention

XX Claim 11; Page 40; 49pp; English.

XX The present invention provides a number of parathyroid hormone (PTH) or

XX parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2

XX receptor agonists or antagonists and can be used in the treatment of

XX disorders resulting from altered or excessive action of the PTH2

XX receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,

XX divergence from normal mineral metabolism and homeostasis, male

XX infertility, abnormal blood pressure or a hypothalamic disease. The

XX present sequence is a peptide analogue of the invention

```
XX SQ Sequence 34 AA;
Query Match 90.0%; Score 148.5; DB 3; Length 34;
Best Local Similarity 91.2%; Pred. No. 2.2e-13;
Matches 31; Conservative 0; Mismatches 2; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSKERVWLRKKLQDVHNY 33
DB 1 SVSEIQLAHNLGKHLNSKERVWLRKKLQDVHNY 34

RESULT 38
ABJ10707
ID ABJ10707 standard; peptide; 34 AA.
XX AC ABJ10707;
XX DT 02-DEC-2002 (first entry)
XX DE Human parathyroid hormone analogue #3.
XX KW Human; parathyroid hormone; parathyroid hormone-related protein; PTH;
KW PTHrP; analogue; abnormal CNS function; pancreatic function;
KW mineral metabolism; male infertility; abnormal blood pressure;
KW hypothalamic disease.
XX OS Homo sapiens.
XX OS Synthetic.
XX FH Key Location/Qualifiers
FT Modified-site 8 /label= Nle
FT Misc-difference 8 /note= "D-form residue"
FT Modified-site 18 /label= Nle
FT Modified-site 34 /note= "norleucine"
FT Modified-site 34 /note= "C-terminal amide"
FT Misc-difference 34 /note= "wild-type Phe substituted by Tyr"
XX PN WO9957139-A2.
XX PD 11-NOV-1999.
XX PF 03-MAY-1999; 99WO-US009521.
XX PR 05-MAY-1998; 98US-00072956.
XX PA (SCRC ) SOC CONSEILS RECH & APPL SCI.
XX PI Chorev M, Dong ZX, Rosenblatt M;
XX DR WPI; 2000-038790/03.
XX PT New parathyroid hormone analogs, used for treating e.g. abnormal CNS or
XX pancreatic functions, abnormal mineral metabolism and homeostasis, male
XX infertility, abnormal blood pressure or hypothalamic disease.
XX PS Claim 11; Page 38; 49pp; English.
XX CC The present invention provides a number of parathyroid hormone (PTH) or
XX parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2
XX receptor agonists or antagonists and can be used in the treatment of
XX disorders resulting from altered or excessive action of the PTH2
XX receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,
XX divergence from normal mineral metabolism and homeostasis, male
XX infertility, abnormal blood pressure or a hypothalamic disease. The
XX present sequence is a peptide analogue of the invention
XX PS Sequence 34 AA;
Query Match 90.0%; Score 148.5; DB 3; Length 34;
Best Local Similarity 91.2%; Pred. No. 2.2e-13;
Matches 31; Conservative 0; Mismatches 2; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSKERVWLRKKLQDVHNY 33
DB 1 SVSEIQLAHNLGKHLNSKERVWLRKKLQDVHNY 34

RESULT 39
ABJ10710
ID ABJ10710 standard; peptide; 34 AA.
XX AC ABJ10710;
XX DT 02-DEC-2002 (first entry)
XX DE Human parathyroid hormone analogue #6.
XX KW Human; parathyroid hormone; parathyroid hormone-related protein; PTH;
KW PTHrP; analogue; abnormal CNS function; pancreatic function;
KW mineral metabolism; male infertility; abnormal blood pressure;
KW hypothalamic disease.
XX OS Homo sapiens.
XX OS Synthetic.
XX FH Key Location/Qualifiers
FT Modified-site 8 /label= OTHER
FT Misc-difference 18 /note= "naphthylalanine, D-form residue"
FT Modified-site 18 /label= Nle
FT Modified-site 34 /note= "C-terminal amide"
FT Misc-difference 34 /note= "wild-type Phe substituted by Tyr"
XX PN WO9957139-A2.
XX PD 11-NOV-1999.
XX PF 03-MAY-1999; 99WO-US009521.
XX PR 05-MAY-1998; 98US-00072956.
XX PA (SCRC ) SOC CONSEILS RECH & APPL SCI.
XX PI Chorev M, Dong ZX, Rosenblatt M;
XX DR WPI; 2000-038790/03.
XX PT New parathyroid hormone analogs, used for treating e.g. abnormal CNS or
XX pancreatic functions, abnormal mineral metabolism and homeostasis, male
XX infertility, abnormal blood pressure or hypothalamic disease.
XX PS Claim 11; Page 38; 49pp; English.
XX CC The present invention provides a number of parathyroid hormone (PTH) or
XX parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2
XX receptor agonists or antagonists and can be used in the treatment of
XX disorders resulting from altered or excessive action of the PTH2
XX receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,
XX divergence from normal mineral metabolism and homeostasis, male
XX infertility, abnormal blood pressure or a hypothalamic disease. The
XX present sequence is a peptide analogue of the invention
XX PS Sequence 34 AA;
Query Match 90.0%; Score 148.5; DB 3; Length 34;
Best Local Similarity 94.1%; Pred. No. 2.2e-13;
Matches 32; Conservative 0; Mismatches 1; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSKERVWLRKKLQDVHNY 33
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Job time : 138 secs

Db 1 SVSEIQLNHNGKHLNSXERVEWLKKLODVHNY 34

RESULT 40
ABJ10716
ID ABJ10716 standard; peptide; 34 AA.
XX AC ABJ10716;
XX DT 02-DEC-2002 (first entry)
XX DE Human parathyroid hormone analogue #12.
XX KW Human; parathyroid hormone; parathyroid hormone-related protein; PTH;
KW PTHrP; analogue; abnormal CNS function; pancreatic function;
KW mineral metabolism; male infertility; abnormal blood pressure;
KW hypothalamic disease.
XX OS Homo sapiens.
XX OS Synthetic.
XX FH Key Location/Qualifiers
FT Misc-difference 8 /note= "D-form residue"
FT Modified-site 18 /label= Nle
FT Modified-site 34
FT FT /note= "C-terminal amide"
FT Misc-difference 34 /note= "wild-type Phe substituted by Tyr"

XX PN WO9957139-A2.
XX PD 11-NOV-1999.
XX PF 03-MAY-1999; 99WO-US009521.
XX PR 05-MAY-1998; 98US-00072956.
XX (SCRC) SOC CONSEILS RECH & APPL SCI.
XX PA Chorev M, Dong ZX, Rosenblatt M;
XX PI WPI; 2000-038790/03.
XX DR New parathyroid hormone analogs, used for treating e.g. abnormal CNS or
PT pancreatic functions, abnormal mineral metabolism and homeostasis, male
PT infertility, abnormal blood pressure or hypothalamic disease.
XX Claim 11; Page 38; 49pp; English.

XX CC The present invention provides a number of parathyroid hormone (PTH) or
CC parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2
CC receptor agonists or antagonists and can be used in the treatment of
CC disorders resulting from altered or excessive action of the PTH2
CC receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,
CC divergence from normal mineral metabolism and homeostasis, male
CC infertility, abnormal blood pressure or a hypothalamic disease. The
XX present sequence is a peptide analogue of the invention

SQ Sequence 34 AA;

Query Match 90.0%; Score 148.5; DB 3; Length 34;
Best Local Similarity 91.2%; Pred. No. 2.2e-13;
Matches 31; Conservative 0; Mismatches 2; Indels 1; Gaps 1;

QY 1 SVSEIQ- XHNXGKHLNSXERVEWLKKLODVHNY 33
Db 1 SVSEIQLNHNGKHLNSXERVEWLKKLODVHNY 34

Search completed: January 28, 2006, 01:12:57

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: January 28, 2006, 01:09:53 ; Search time 46 Seconds
(without alignments)
59.311 Million cell updates/sec

Title: US-09-674-597A-16

Perfect score: 165

Sequence: 1 SVSEIQHXNKGHLNKSXRVWLRKKLQDVHNY 33

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 572060 seqs, 82675679 residues

Total number of hits satisfying chosen parameters: 572060

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 100 summaries

Database :

- Issued Patents AA:*
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6: /cgn2_6/prodata/1/iaa/backfiles1.pep.*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	149.5	90.6	32	2	US-09-623-548A-264
2	149.5	90.6	32	2	US-09-623-548A-265
3	149.5	90.6	32	2	US-09-657-276-264
4	149.5	90.6	32	2	US-09-657-276-265
5	148.5	90.0	34	1	US-08-488-105-10
6	148.5	90.0	34	1	US-08-142-551B-3
7	148.5	90.0	34	2	US-08-903-497A-1
8	148.5	90.0	34	2	US-09-635-076-1
9	148.5	90.0	34	2	US-09-843-221A-21
10	148.5	90.0	35	1	US-08-142-551B-4
11	148.5	90.0	35	1	US-08-142-551B-5
12	148.5	90.0	35	1	US-08-142-551B-7
13	148.5	90.0	35	1	US-08-142-551B-23
14	148.5	90.0	35	1	US-08-142-551B-31
15	148.5	90.0	35	1	US-08-142-551B-32
16	148.5	90.0	35	1	US-08-142-551B-33
17	148.5	90.0	35	1	US-08-142-551B-34
18	148.5	90.0	35	1	US-08-142-551B-35
19	148.5	90.0	35	1	US-08-142-551B-36
20	148.5	90.0	35	1	US-08-142-551B-37
21	148.5	90.0	35	1	US-08-142-551B-44
22	148.5	90.0	35	1	US-08-142-551B-45
23	148.5	90.0	35	1	US-08-142-551B-46
24	148.5	90.0	35	1	US-08-142-551B-49
25	148.5	90.0	35	1	US-08-142-551B-67
26	148.5	90.0	35	1	US-08-142-551B-68
27	148.5	90.0	35	1	US-08-142-551B-70
28	148.5	90.0	35	1	US-08-142-551B-73
29	148.5	90.0	35	1	US-08-142-551B-80
30	148.5	90.0	35	1	US-08-142-551B-90
31	148.5	90.0	35	1	US-08-142-551B-94
32	148.5	90.0	44	1	US-08-468-275-4
33	148.5	90.0	44	2	US-09-007-466-4
34	148.5	90.0	44	2	US-08-952-980B-4
35	148.5	90.0	67	1	US-08-142-551B-9
36	145.5	88.2	35	1	US-08-142-551B-30
37	145.5	88.2	35	1	US-08-142-551B-50
38	145.5	88.2	35	1	US-08-142-551B-72
39	145.5	88.2	35	1	US-08-142-551B-88
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41	145.5	88.2	35	1	US-08-142-551B-95
42	145.5	88.2	35	1	US-08-142-551B-102
43	144.5	87.6	34	1	US-07-765-373-1
44	144.5	87.6	34	1	US-08-033-099-1
45	144.5	87.6	34	1	US-08-262-495C-1
46	144.5	87.6	34	1	US-07-915-247A-1
47	144.5	87.6	34	1	US-08-443-863-1
48	144.5	87.6	34	1	US-08-448-070-1
49	144.5	87.6	34	1	US-08-488-105-4
50	144.5	87.6	34	1	US-08-488-105-7
51	144.5	87.6	34	1	US-08-488-105-16
52	144.5	87.6	34	1	US-08-468-275-6
53	144.5	87.6	34	1	US-08-449-500-1
54	144.5	87.6	34	1	US-08-449-317A-1
55	144.5	87.6	34	1	US-08-142-551B-2
56	144.5	87.6	34	1	US-08-477-022-1
57	144.5	87.6	34	1	US-08-449-447-1
58	144.5	87.6	34	1	US-08-835-231-13
59	144.5	87.6	34	1	US-08-184-328-1
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61	144.5	87.6	34	1	US-08-691-647C-5
62	144.5	87.6	34	1	US-08-521-097-1
63	144.5	87.6	34	2	US-09-044-536A-1
64	144.5	87.6	34	2	US-08-904-760B-22
65	144.5	87.6	34	2	US-09-108-661-13
66	144.5	87.6	34	2	US-09-007-466-6
67	144.5	87.6	34	2	US-09-406-813-1
68	144.5	87.6	34	2	US-08-952-980B-6
69	144.5	87.6	34	2	US-09-228-990-1
70	144.5	87.6	34	2	US-09-447-800-8
71	144.5	87.6	34	2	US-09-536-785A-22
72	144.5	87.6	34	2	US-09-442-989-26
73	144.5	87.6	34	2	US-09-555-447-2
74	144.5	87.6	34	2	US-09-843-221A-16
75	144.5	87.6	34	2	US-09-843-221A-17
76	144.5	87.6	34	2	US-09-843-221A-18
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84	144.5	87.6	34	2	US-09-623-548A-272
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91	144.5	87.6	34	2	US-09-928-047B-6
92	144.5	87.6	34	4	PCT-US95-15800-22
93	144.5	87.6	35	1	US-08-256-363-3
94	144.5	87.6	35	1	US-08-142-551B-11
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96	144.5	87.6	35	1	US-08-142-551B-13
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98	144.5	87.6	35	1	US-08-142-551B-18
99	144.5	87.6	35	1	US-08-142-551B-20
100	144.5	87.6	35	1	US-08-142-551B-21

ALIGNMENTS

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RESULT 1
US-09-623-548A-264
; Sequence 264, Application US/09623548A
; Patent No. 6849714
; GENERAL INFORMATION:
; APPLICANT: Conjuchem, Inc.
; APPLICANT: Bridon, Dominique
; APPLICANT: Ezrin, Alan
; APPLICANT: Milner, Peter
; APPLICANT: Holmes, Darren
; APPLICANT: Thibaudau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; TITLE OF INVENTION: COMPONENTS
; FILE REFERENCE: 2110
; CURRENT APPLICATION NUMBER: US/09/623,548A
; CURRENT FILING DATE: 2000-09-05
; PRIOR APPLICATION NUMBER: 60/134,406
; PRIOR FILING DATE: 1999-05-17
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-18
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 264
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
US-09-623-548A-264

Query Match          90.6%; Score 149.5; DB 2; Length 32;
Best Local Similarity 90.9%; Pred. No. 5e-14;
Matches 30; Conservative 0; Mismatches 2; Indels 1; Gaps 1;

QY 1 SVSEIQHXNKXGKHLNSXERVWLKRLQDVHNY 33
Db 1 SVSEIQLHNLGKHLNS-ERVWLKRLQDVHNY 32

RESULT 2
US-09-623-548A-265
; Sequence 265, Application US/09623548A
; Patent No. 6849714
; GENERAL INFORMATION:
; APPLICANT: Conjuchem, Inc.
; APPLICANT: Bridon, Dominique
; APPLICANT: Ezrin, Alan
; APPLICANT: Milner, Peter
; APPLICANT: Holmes, Darren
; APPLICANT: Thibaudau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; TITLE OF INVENTION: COMPONENTS
; FILE REFERENCE: 2110
; CURRENT APPLICATION NUMBER: US/09/623,548A
; CURRENT FILING DATE: 2000-09-05
; PRIOR APPLICATION NUMBER: 60/134,406
; PRIOR FILING DATE: 1999-05-17
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-18
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 264
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
US-09-623-548A-265

Query Match          90.6%; Score 149.5; DB 2; Length 32;
Best Local Similarity 90.9%; Pred. No. 5e-14;
Matches 30; Conservative 0; Mismatches 2; Indels 1; Gaps 1;

QY 1 SVSEIQHXNKXGKHLNSXERVWLKRLQDVHNY 33
Db 1 SVSEIQLHNLGKHLNS-ERVWLKRLQDVHNY 32

RESULT 3
US-09-657-276-264
; Sequence 264, Application US/09657276
; Patent No. 6887470
; GENERAL INFORMATION:
; APPLICANT: Conjuchem, Inc.
; APPLICANT: Bridon, Dominique
; APPLICANT: Ezrin, Alan
; APPLICANT: Milner, Peter
; APPLICANT: Holmes, Darren
; APPLICANT: Thibaudau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; TITLE OF INVENTION: COMPONENTS
; FILE REFERENCE: 2110
; CURRENT APPLICATION NUMBER: US/09/657,276
; CURRENT FILING DATE: 2000-09-07
; PRIOR APPLICATION NUMBER: 60/134,406
; PRIOR FILING DATE: 1999-05-17
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-18
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 264
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
US-09-657-276-264

Query Match          90.6%; Score 149.5; DB 2; Length 32;
Best Local Similarity 90.9%; Pred. No. 5e-14;
Matches 30; Conservative 0; Mismatches 2; Indels 1; Gaps 1;

QY 1 SVSEIQHXNKXGKHLNSXERVWLKRLQDVHNY 33
Db 1 SVSEIQLHNLGKHLNS-ERVWLKRLQDVHNY 32

RESULT 4
US-09-657-276-265
; Sequence 265, Application US/09657276
; Patent No. 6887470
; GENERAL INFORMATION:
; APPLICANT: Conjuchem, Inc.
; APPLICANT: Bridon, Dominique
; APPLICANT: Ezrin, Alan
; APPLICANT: Milner, Peter
; APPLICANT: Holmes, Darren
; APPLICANT: Thibaudau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/488,105
FILING DATE: 07-JUN-1995
CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
NAME: Tsao, Y. Rocky
REGISTRATION NUMBER: 34,053
REFERENCE/DOCKET NUMBER: 00537/112001
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617/542-5070
TELEFAX: 617/542-8906
TELEX: 200154
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LENGTH: 34 amino acids
TYPE: amino acid
STRANDEDNESS: not relevant
TOPOLOGY: linear
MOLECULE TYPE: protein
FEATURE:
OTHER INFORMATION: The side chains of Lys at

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Query Match          90.0%; Score 148.5; DB 1; Length 34;
Best Local Similarity 88.2%; Pred. No. 7.3e-14;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;
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Db 1 SVSEIQLHLNKGHLNSLSEVWLRKKLQDVHNY 34

RESULT 7

US-08-903-497A-1
; Sequence 1, Application US/08903497A
; Patent No. 6147186
; GENERAL INFORMATION:
; APPLICANT: Gardella, Thomas J.
; TITLE OF INVENTION: No. 6147186el Parathyroid Hormone-Related
; TITLE OF INVENTION: Peptide Analogs
; NUMBER OF SEQUENCES: 7
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Sterne, Kessler, Goldstein and Fox P.L.L.C.
; STREET: 1100 New York Avenue, N.W., Suite 600
; CITY: Washington
; STATE: DC
; COUNTRY: USA
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/903,497A
; FILING DATE: 30-JUL-1997
; CLASSIFICATION: 514
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/025,471
; FILING DATE: 31-JUL-1996
; ATTORNEY/AGENT INFORMATION:
; NAME: Markowicz, Karen R.
; REGISTRATION NUMBER: 36,351
; REFERENCE/DOCKET NUMBER: 0609.4310001/JAG/KRM
; TELEPHONE: (202) 371-2600
; TELEFAX: (202) 371-2540
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 34 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: not relevant
; MOLECULE TYPE: peptide
; FEATURE:
; NAME/KEY: MODIFIED-SITE
; LOCATION: 34
; OTHER INFORMATION: CARBOXY-TERMINAL MODIFICATION OF TYROSINE-
US-08-903-497A-1

Query Match 90.0%; Score 148.5; DB 2; Length 34;
Best Local Similarity 88.2%; Pred. No. 7.3e-14;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;
Db 1 SVSEIQLHLNKGHLNSLSEVWLRKKLQDVHNY 34
1 SVSEIQLHLNKGHLNSLSEVWLRKKLQDVHNY 34
1 SVSEIQLHLNKGHLNSLSEVWLRKKLQDVHNY 34

RESULT 8

US-09-635-076-1
; Sequence 1, Application US/09635076
; Patent No. 6362163
; GENERAL INFORMATION:
; APPLICANT: Gardella, Thomas J.
; TITLE OF INVENTION: No. 6362163el Parathyroid Hormone-Related
; TITLE OF INVENTION: Peptide Analogs
; NUMBER OF SEQUENCES: 7
; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Sterne, Kessler, Goldstein and Fox P.L.L.C.
; STREET: 1100 New York Avenue, N.W., Suite 600
; CITY: Washington
; STATE: DC
; COUNTRY: USA
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/635,076
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/903,497
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Markowicz, Karen R.
; REGISTRATION NUMBER: 36,351
; REFERENCE/DOCKET NUMBER: 0609.4310001/JAG/KRM
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (202) 371-2600
; TELEFAX: (202) 371-2540
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 34 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: not relevant
; MOLECULE TYPE: peptide
; FEATURE:
; NAME/KEY: MODIFIED-SITE
; LOCATION: 34
; OTHER INFORMATION: CARBOXY-TERMINAL MODIFICATION OF TYROSINE-
US-09-635-076-1

Query Match 90.0%; Score 148.5; DB 2; Length 34;
Best Local Similarity 88.2%; Pred. No. 7.3e-14;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;
Db 1 SVSEIQLHLNKGHLNSLSEVWLRKKLQDVHNY 34
1 SVSEIQLHLNKGHLNSLSEVWLRKKLQDVHNY 34

RESULT 9

US-09-843-221A-21
; Sequence 21, Application US/09843221A
; Patent No. 6756480
; GENERAL INFORMATION:
; APPLICANT: KOSTENIUK, PAUL
; APPLICANT: LIU, CHUAN-PA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: RELATED PROTEIN
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 21
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Artificial Sequence

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; FEATURE:
; OTHER INFORMATION: modified human PTH
US-09-843-221A-21

Query Match          90.0%; Score 148.5; DB 2; Length 34;
Best Local Similarity 88.2%; Pred. No. 7.5e-14;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGKHLNSXRVWLRKKLQDVHNY 33
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Db 1 SVSEIQLLNLGKHLNSLSEVWLRKKLQDVHNY 34

RESULT 10
US-08-142-551B-4
; Sequence 4, Application US/08142551B
; Patent No. 5814603
; GENERAL INFORMATION:
; APPLICANT: Oldenburg, Kevin R.
; APPLICANT: Selick, Harold E.
; TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
; NUMBER OF SEQUENCES: 132
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Burns, Doane, Swecker & Mathis
; STREET: 699 Prince Street
; CITY: Alexandria
; STATE: Virginia
; COUNTRY: US
; ZIP: 22313
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/142,551B
; FILING DATE: 25-OCT-1993
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/077,296
; FILING DATE: 14-JUN-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/898,219
; FILING DATE: 12-JUN-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/965,677
; FILING DATE: 22-OCT-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Swiss, Gerald F.
; REGISTRATION NUMBER: 30,113
; REFERENCE/DOCKET NUMBER: 000324-010
; TELEPHONE: (415) 854-7400
; TELEFAX: (415) 854-8275
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 35 amino acids
; TYPE: amino acid
; TOPOLOGY: unknown
; MOLECULE TYPE: protein
; FEATURE:
; NAME/KEY: Modified-site
; LOCATION: 35
; OTHER INFORMATION: /note= "Where "Xaa" is Homoserine"
US-08-142-551B-4

Query Match          90.0%; Score 148.5; DB 1; Length 35;
Best Local Similarity 88.2%; Pred. No. 7.5e-14;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGKHLNSXRVWLRKKLQDVHNY 33
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 1 SVSEIQLLNLGKHLNSLSEVWLRKKLQDVHNY 34

RESULT 12
US-08-142-551B-7
; Sequence 7, Application US/08142551B
; Patent No. 5814603
; GENERAL INFORMATION:
; APPLICANT: Oldenburg, Kevin R.
; APPLICANT: Selick, Harold E.
; TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
; NUMBER OF SEQUENCES: 132
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Burns, Doane, Swecker & Mathis
; STREET: 699 Prince Street
; CITY: Alexandria
; STATE: Virginia
; COUNTRY: US
; ZIP: 22313
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/142,551B
; FILING DATE: 25-OCT-1993
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/077,296
; FILING DATE: 14-JUN-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/898,219
; FILING DATE: 12-JUN-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/965,677
; FILING DATE: 22-OCT-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Swiss, Gerald F.
; REGISTRATION NUMBER: 30,113
; REFERENCE/DOCKET NUMBER: 000324-010
; TELEPHONE: (415) 854-7400
; TELEFAX: (415) 854-8275
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 35 amino acids
; TYPE: amino acid
; TOPOLOGY: unknown
; MOLECULE TYPE: protein
; FEATURE:
; NAME/KEY: Modified-site
; LOCATION: 35
; OTHER INFORMATION: /note= "Where "Xaa" is Homoserine"
US-08-142-551B-7

Query Match          90.0%; Score 148.5; DB 1; Length 35;
Best Local Similarity 88.2%; Pred. No. 7.5e-14;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGKHLNSXRVWLRKKLQDVHNY 33
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 1 SVSEIQLLNLGKHLNSLSEVWLRKKLQDVHNY 34

RESULT 11
US-08-142-551B-5
; Sequence 5, Application US/08142551B
; Patent No. 5814603
; GENERAL INFORMATION:
; APPLICANT: Oldenburg, Kevin R.
; APPLICANT: Selick, Harold E.
; TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
; NUMBER OF SEQUENCES: 132
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Burns, Doane, Swecker & Mathis
; STREET: 699 Prince Street
; CITY: Alexandria
; STATE: Virginia
; COUNTRY: US
; ZIP: 22313
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/142,551B
; FILING DATE: 25-OCT-1993
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/077,296
; FILING DATE: 14-JUN-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/898,219
; FILING DATE: 12-JUN-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/965,677
; FILING DATE: 22-OCT-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Swiss, Gerald F.
; REGISTRATION NUMBER: 30,113
; REFERENCE/DOCKET NUMBER: 000324-010
; TELEPHONE: (415) 854-7400
; TELEFAX: (415) 854-8275
; INFORMATION FOR SEQ ID NO: 5:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 35 amino acids
; TYPE: amino acid
; TOPOLOGY: unknown
; MOLECULE TYPE: protein
; FEATURE:
; NAME/KEY: Modified-site
; LOCATION: 35
; OTHER INFORMATION: /note= "Where "Xaa" is Homoserine"
US-08-142-551B-5

Query Match          90.0%; Score 148.5; DB 1; Length 35;
Best Local Similarity 88.2%; Pred. No. 7.5e-14;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGKHLNSXRVWLRKKLQDVHNY 33
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 1 SVSEIQLLNLGKHLNSLSEVWLRKKLQDVHNY 34

RESULT 13
US-08-142-551B-8
; Sequence 8, Application US/08142551B
; Patent No. 5814603
; GENERAL INFORMATION:
; APPLICANT: Oldenburg, Kevin R.
; APPLICANT: Selick, Harold E.
; TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
; NUMBER OF SEQUENCES: 132
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Burns, Doane, Swecker & Mathis
; STREET: 699 Prince Street
; CITY: Alexandria
; STATE: Virginia
; COUNTRY: US
; ZIP: 22313
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/142,551B
; FILING DATE: 25-OCT-1993
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/077,296
; FILING DATE: 14-JUN-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/898,219
; FILING DATE: 12-JUN-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/965,677
; FILING DATE: 22-OCT-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Swiss, Gerald F.
; REGISTRATION NUMBER: 30,113
; REFERENCE/DOCKET NUMBER: 000324-010
; TELEPHONE: (415) 854-7400
; TELEFAX: (415) 854-8275
; INFORMATION FOR SEQ ID NO: 8:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 35 amino acids
; TYPE: amino acid
; TOPOLOGY: unknown
; MOLECULE TYPE: protein
; FEATURE:
; NAME/KEY: Modified-site
; LOCATION: 35
; OTHER INFORMATION: /note= "Where "Xaa" is Homoserine"
US-08-142-551B-8

Query Match          90.0%; Score 148.5; DB 1; Length 35;
Best Local Similarity 88.2%; Pred. No. 7.5e-14;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGKHLNSXRVWLRKKLQDVHNY 33
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 1 SVSEIQLLNLGKHLNSLSEVWLRKKLQDVHNY 34
```

```
/ APPLICANT: Selick, Harold E.
/ TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
/ NUMBER OF SEQUENCES: 132
/ CORRESPONDENCE ADDRESS:
/ ADDRESSEE: Burns, Doane, Swecker & Mathis
/ STREET: 699 Prince Street
/ CITY: Alexandria
/ STATE: Virginia
/ COUNTRY: US
/ ZIP: 22313
/ COMPUTER READABLE FORM:
/ MEDIUM TYPE: Floppy disk
/ COMPUTER: IBM PC compatible
/ OPERATING SYSTEM: PC-DOS/MS-DOS
/ SOFTWARE: PatentIn Release #1.0, Version #1.25
/ CURRENT APPLICATION DATA:
/ APPLICATION NUMBER: US 08/142,551B
/ FILING DATE: 25-OCT-1993
/ CLASSIFICATION: 435
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 08/077,296
/ FILING DATE: 14-JUN-1993
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 07/898,219
/ FILING DATE: 12-JUN-1992
/ APPLICATION NUMBER: US 07/965,677
/ FILING DATE: 22-OCT-1992
/ ATTORNEY/AGENT INFORMATION:
/ NAME: Swiss, Gerald F.
/ REGISTRATION NUMBER: 30,113
/ REFERENCE/DOCKET NUMBER: 000324-010
/ TELEPHONE: (415) 854-7400
/ TELEFAX: (415) 854-8275
/ INFORMATION FOR SEQ ID NO: 7:
/ SEQUENCE CHARACTERISTICS:
/ LENGTH: 35 amino acids
/ TYPE: amino acid
/ TOPOLOGY: unknown
/ MOLECULE TYPE: protein
/ NAME/KEY: Modified-site
/ LOCATION: 35
/ OTHER INFORMATION: /note= "Where "Xaa" is selected
/ OTHER INFORMATION: from the group consisting of Hol, Ho, a homoserine
/ OTHER INFORMATION: amide, or the sequence of amino acids comprising
/ OTHER INFORMATION: residues 35-84 of PTH."
/ US-08-142-551B-7

Query Match 90.0%; Score 148.5; DB 1; Length 35;
Best Local Similarity 88.2%; Pred. No. 7.5e-14;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;

Qy 1 SVSEIQ-XHNKGKHLNSRVERWLRKKLQDVHNY 33
Db 1 SVSEIQLHLNLGKHLNSLRVERWLRKKLQDVHNY 34

RESULT 13
US-08-142-551B-23
; Sequence 23, Application US/08142551B
; Patent No. 5814603
; GENERAL INFORMATION:
; APPLICANT: Oldenburg, Kevin R.
; APPLICANT: Selick, Harold E.
; TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
; NUMBER OF SEQUENCES: 132
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Burns, Doane, Swecker & Mathis
; STREET: 699 Prince Street
; CITY: Alexandria
; STATE: Virginia
; COUNTRY: US
; ZIP: 22313
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US 08/142,551B
; FILING DATE: 25-OCT-1993
; CLASSIFICATION: 435
; COMPUTER: IBM PC compatible
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/ OPERATING SYSTEM: PC-DOS/MS-DOS
/ SOFTWARE: PatentIn Release #1.0, Version #1.25
/ CURRENT APPLICATION DATA:
/ APPLICATION NUMBER: US/08/142,551B
/ FILING DATE: 25-OCT-1993
/ CLASSIFICATION: 435
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 08/077,296
/ FILING DATE: 14-JUN-1993
/ APPLICATION NUMBER: US 07/898,219
/ FILING DATE: 12-JUN-1992
/ APPLICATION NUMBER: US 07/965,677
/ FILING DATE: 22-OCT-1992
/ ATTORNEY/AGENT INFORMATION:
/ NAME: Swiss, Gerald F.
/ REGISTRATION NUMBER: 30,113
/ REFERENCE/DOCKET NUMBER: 000324-010
/ TELEPHONE: (415) 854-7400
/ TELEFAX: (415) 854-8275
/ INFORMATION FOR SEQ ID NO: 23:
/ SEQUENCE CHARACTERISTICS:
/ LENGTH: 35 amino acids
/ TYPE: amino acid
/ TOPOLOGY: unknown
/ MOLECULE TYPE: protein
/ FEATURE:
/ NAME/KEY: Modified-site
/ LOCATION: 35
/ OTHER INFORMATION: /note= "Where "Xaa" is selected
/ OTHER INFORMATION: from the group consisting of Hol, Ho, a homoserine
/ OTHER INFORMATION: amide, or the sequence of amino acids comprising
/ OTHER INFORMATION: residues 35-84 of PTH."
/ US-08-142-551B-23

Query Match 90.0%; Score 148.5; DB 1; Length 35;
Best Local Similarity 88.2%; Pred. No. 7.5e-14;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;

Qy 1 SVSEIQ-XHNKGKHLNSRVERWLRKKLQDVHNY 33
Db 1 SVSEIQLHLNLGKHLNSLRVERWLRKKLQDVHNY 34

RESULT 14
US-08-142-551B-31
; Sequence 31, Application US/08142551B
; Patent No. 5814603
; GENERAL INFORMATION:
; APPLICANT: Oldenburg, Kevin R.
; APPLICANT: Selick, Harold E.
; TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
; NUMBER OF SEQUENCES: 132
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Burns, Doane, Swecker & Mathis
; STREET: 699 Prince Street
; CITY: Alexandria
; STATE: Virginia
; COUNTRY: US
; ZIP: 22313
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US 08/142,551B
; FILING DATE: 25-OCT-1993
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
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/ APPLICATION NUMBER: US 08/077,296
/ FILING DATE: 14-JUN-1993
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 07/898,219
/ FILING DATE: 12-JUN-1992
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 07/965,677
/ FILING DATE: 22-OCT-1992
/ ATTORNEY/AGENT INFORMATION:
/ NAME: Swiss, Gerald F.
/ REGISTRATION NUMBER: 30,113
/ REFERENCE/DOCKET NUMBER: 000324-010
/ TELEPHONE: (415) 854-7400
/ TELEFAX: (415) 854-8275
/ INFORMATION FOR SEQ ID NO: 31:
/ SEQUENCE CHARACTERISTICS:
/ LENGTH: 35 amino acids
/ TYPE: amino acid
/ TOPOLOGY: unknown
/ MOLECULE TYPE: protein
/ FEATURE:
/ NAME/KEY: Modified-site
/ LOCATION: 35
/ OTHER INFORMATION: /note= "Where "Xaa" is selected
/ OTHER INFORMATION: from the group consisting of Hol, Ho, a homoserine
/ OTHER INFORMATION: amide, or the sequence of amino acids comprising
/ OTHER INFORMATION: residues 35-84 of PTH."
US-08-142-551B-31
Query Match 90.0%; Score 148.5; DB 1; Length 35;
Best Local Similarity 88.2%; Pred. No. 7.5e-14;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHXGKHLNSXRVWLKRLKLDVHNY 33
Db 1 SVSEIQKHLNGLKHLNSLSEVWLKRLKLDVHNY 34

RESULT 15
US-08-142-551B-32
/ Sequence 32, Application US/08142551B
/ Patent No. 5814603
/ GENERAL INFORMATION:
/ APPLICANT: Oldenburg, Kevin R.
/ TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
/ NUMBER OF SEQUENCES: 132
/ CORRESPONDENCE ADDRESS:
/ ADDRESSEE: Burns, Doane, Swecker & Mathis
/ STREET: 699 Prince Street
/ CITY: Alexandria
/ STATE: Virginia
/ COUNTRY: US
/ ZIP: 22313
/ COMPUTER READABLE FORM:
/ MEDIUM TYPE: Floppy disk
/ COMPUTER: IBM PC compatible
/ OPERATING SYSTEM: PC-DOS/MS-DOS
/ SOFTWARE: Patent In Release #1.0, Version #1.25
/ CURRENT APPLICATION DATA:
/ APPLICATION NUMBER: US/08/142,551B
/ FILING DATE: 25-OCT-1993
/ CLASSIFICATION: 435
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 08/077,296
/ FILING DATE: 14-JUN-1993
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 07/898,219
/ FILING DATE: 12-JUN-1992
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 07/965,677
/ FILING DATE: 22-OCT-1992
/ ATTORNEY/AGENT INFORMATION:
/ NAME: Swiss, Gerald F.
/ REGISTRATION NUMBER: 30,113
/ REFERENCE/DOCKET NUMBER: 000324-010
/ TELECOMMUNICATION INFORMATION:
/ TELEPHONE: (415) 854-7400

/ APPLICATION NUMBER: US 08/077,296
/ FILING DATE: 14-JUN-1993
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 07/898,219
/ FILING DATE: 12-JUN-1992
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 07/965,677
/ FILING DATE: 22-OCT-1992
/ ATTORNEY/AGENT INFORMATION:
/ NAME: Swiss, Gerald F.
/ REGISTRATION NUMBER: 30,113
/ REFERENCE/DOCKET NUMBER: 000324-010
/ TELECOMMUNICATION INFORMATION:
/ TELEPHONE: (415) 854-7400
```

```
/ TELEFAX: (415) 854-8275
/ INFORMATION FOR SEQ ID NO: 33:
/ SEQUENCE CHARACTERISTICS:
/   LENGTH: 35 amino acids
/   TYPE: amino acid
/   TOPOLOGY: unknown
/   MOLECULE TYPE: protein
/   FEATURE:
/     NAME/KEY: Modified-site
/     LOCATION: 35
/   OTHER INFORMATION: /note= "Xaa" is selected
/   OTHER INFORMATION: from the group consisting of Hol, Ho, a homoserine
/   OTHER INFORMATION: amide, or the sequence of amino acids comprising
/   OTHER INFORMATION: residues 35-84 of PTH."
/
US-08-142-551B-34

Query Match          90.0%; Score 148.5; DB 1; Length 35;
Best Local Similarity 88.2%; Pred. No. 7.5e-14;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSXRVWLKRLKQDVHNY 33
    ||||| || ||||| ||||| ||||| |||||
Db 1 SVSEIQELHNLGKHLNSLXRVWLKRLKQDVHNY 34

RESULT 17
US-08-142-551B-34
; Sequence 34, Application US/08142551B
; Patent No. 5814603
; GENERAL INFORMATION:
; APPLICANT: Oldenburg, Kevin R.
; APPLICANT: Selick, Harold E.
; TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
; TITLE OF INVENTION: RECOMBINANT DNA VECTORS ENCODING SAME
; NUMBER OF SEQUENCES: 132
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Burns, Doane, Swecker & Mathis
; STREET: 699 Prince Street
; CITY: Alexandria
; STATE: Virginia
; COUNTRY: US
; ZIP: 22313
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/142,551B
; FILING DATE: 25-OCT-1993
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/077,296
; FILING DATE: 14-JUN-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/898,219
; FILING DATE: 12-JUN-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/965,677
; FILING DATE: 22-OCT-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Swiss, Gerald F.
; REGISTRATION NUMBER: 30,113
; REFERENCE/DOCKET NUMBER: 000324-010
; TELEPHONE: (415) 854-7400
; TELEFAX: (415) 854-8275
; INFORMATION FOR SEQ ID NO: 34:
; SEQUENCE CHARACTERISTICS:
;   LENGTH: 35 amino acids
;   TYPE: amino acid
;   TOPOLOGY: unknown
;   MOLECULE TYPE: protein
;   FEATURE:
;     NAME/KEY: Modified-site
;     LOCATION: 35
;   OTHER INFORMATION: /note= "Xaa" is selected
;   OTHER INFORMATION: from the group consisting of Hol, Ho, a homoserine
;   OTHER INFORMATION: amide, or the sequence of amino acids comprising
;   OTHER INFORMATION: residues 35-84 of PTH."
;

/ TELEFAX: (415) 854-8275
/ INFORMATION FOR SEQ ID NO: 33:
/ SEQUENCE CHARACTERISTICS:
/   LENGTH: 35 amino acids
/   TYPE: amino acid
/   TOPOLOGY: unknown
/   MOLECULE TYPE: protein
/   FEATURE:
/     NAME/KEY: Modified-site
/     LOCATION: 35
/   OTHER INFORMATION: /note= "Xaa" is selected
/   OTHER INFORMATION: from the group consisting of Hol, Ho, a homoserine
/   OTHER INFORMATION: amide, or the sequence of amino acids comprising
/   OTHER INFORMATION: residues 35-84 of PTH."
/
US-08-142-551B-34

Query Match          90.0%; Score 148.5; DB 1; Length 35;
Best Local Similarity 88.2%; Pred. No. 7.5e-14;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSXRVWLKRLKQDVHNY 33
    ||||| || ||||| ||||| ||||| |||||
Db 1 SVSEIQELHNLGKHLNSLXRVWLKRLKQDVHNY 34

RESULT 18
US-08-142-551B-35
; Sequence 35, Application US/08142551B
; Patent No. 5814603
; GENERAL INFORMATION:
; APPLICANT: Oldenburg, Kevin R.
; APPLICANT: Selick, Harold E.
; TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
; TITLE OF INVENTION: RECOMBINANT DNA VECTORS ENCODING SAME
; NUMBER OF SEQUENCES: 132
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Burns, Doane, Swecker & Mathis
; STREET: 699 Prince Street
; CITY: Alexandria
; STATE: Virginia
; COUNTRY: US
; ZIP: 22313
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/142,551B
; FILING DATE: 25-OCT-1993
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/077,296
; FILING DATE: 14-JUN-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/898,219
; FILING DATE: 12-JUN-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/965,677
; FILING DATE: 22-OCT-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Swiss, Gerald F.
; REGISTRATION NUMBER: 30,113
; REFERENCE/DOCKET NUMBER: 000324-010
; TELEPHONE: (415) 854-7400
; TELEFAX: (415) 854-8275
; INFORMATION FOR SEQ ID NO: 35:
; SEQUENCE CHARACTERISTICS:
;   LENGTH: 35 amino acids
;   TYPE: amino acid
;   TOPOLOGY: unknown
;   MOLECULE TYPE: protein
;   FEATURE:
;     NAME/KEY: Modified-site
;     LOCATION: 35
;   OTHER INFORMATION: /note= "Xaa" is selected
;   OTHER INFORMATION: from the group consisting of Hol, Ho, a homoserine
;   OTHER INFORMATION: amide, or the sequence of amino acids comprising
;   OTHER INFORMATION: residues 35-84 of PTH."
;
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US-08-142-551B-35

Query Match 90.0%; Score 148.5; DB 1; Length 35;
Best Local Similarity 88.2%; Pred. No. 7.5e-14;
Matches 30; Conservative 0; Mismatches 3; Indels

1 SVSEIQ-XHNXGKHLNSERVEWLRKQLQDVHNY 33
1 SVSEIQKHNKLGKHLNSERVEWLRKQLQDVHNY 34

RESULT 19

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US-08-142-551B-36
; Sequence 36, Application US/08142551B
; Patent No. 5814603
; GENERAL INFORMATION:
; APPLICANT: Oldenburg, Kevin R.
; APPLICANT: Selick, Harold E.
; TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
; TITLE OF INVENTION: RECOMBINANT DNA VECTORS ENCODING SAME
; NUMBER OF SEQUENCES: 132
; CORRESPONDENCE ADDRESS:

```

Query Match	90.0%;	Score 148.5;	DB 1;	Length 35;
Best Local Similarity	88.2%;	Pred. No. 7.5e-14;		
Matches	30; Conservative	0; Mismatches	3; Indels	

QY 1 SVSEIQ-XHNXGKHLNSXERVEWLRRKKLODVHNY 33

Db 1 SVSEIQLEHNLGKHLNSLERVEWLRRKKLQDVHNY 34

RESULT 20

```

US-08-142-551B-37
; Sequence 37, Application US/08142551B
; Patent No. 5814603
; GENERAL INFORMATION:
; APPLICANT: Oldenburg, Kevin R.
; APPLICANT: Selick, Harold E.
; TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
; TITLE OF INVENTION: RECOMBINANT DNA VECTORS ENCODING SAME
; NUMBER OF SEQUENCES: 132
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Burns, Doane, Swecker & Mathis
; STREET: 699 Prince Street
; CITY: Alexandria
; STATE: Virginia
; COUNTRY: US
; ZIP: 22313
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/142,551B
; FILING DATE: 25-OCT-1993
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/077,296
; FILING DATE: 14-JUN-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/898,219
; FILING DATE: 12-JUN-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/965,677
; FILING DATE: 22-OCT-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Swiss, Gerald F.
; REGISTRATION NUMBER: 30,113
; REFERENCE/DOCKET NUMBER: 000324-010
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 854-7400
; TELEFAX: (415) 854-8275
; INFORMATION FOR SEQ ID NO: 37:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 35 amino acids
; TYPE: amino acid
; TOPOLOGY: unknown
; MOLECULE TYPE: protein
; FEATURE:
; NAME/KEY: Modified-site
; LOCATION: 35
; OTHER INFORMATION: /note="Xaa" is selected
; OTHER INFORMATION: from the group consisting of Hol, Ho
; OTHER INFORMATION: amide, or the sequence of amino acid
; OTHER INFORMATION: residues 35-84 of PTH."
; US-08-142-551B-37

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Query Match	90.0%	Score 148.5;	DB 1;	Length 35;
Best Local Similarity	88.2%	Pred. No. 7.5e-14;		
Matches 30;	Conservative	0;	Mismatches 3;	Indels 1;
				Gaps 1;

Qy

1 SVSEIQ-XHNXGKHLNSXERVEWLKKLQDVHNY 33
||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||

Dp

1 SVSETQLGNLGHNLNLSLREVEWLKKLQDVHNY 34
||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||

RESIT.T 21

US-08-142-551B-44
; Sequence 44, Application US/08142551B

```
Patent No. 5814603
GENERAL INFORMATION:
APPLICANT: Oldenburg, Kevin R.
APPLICANT: Selick, Harold E.
TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
NUMBER OF SEQUENCES: 132
CORRESPONDENCE ADDRESS:
ADDRESSEE: Burns, Doane, Swecker & Mathis
STREET: 699 Prince Street
CITY: Alexandria
STATE: Virginia
COUNTRY: US
ZIP: 22313
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/142,551B
FILING DATE: 25-OCT-1993
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/077,296
FILING DATE: 14-JUN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/898,219
FILING DATE: 12-JUN-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/965,677
FILING DATE: 22-OCT-1992
ATTORNEY/AGENT INFORMATION:
NAME: Swiss, Gerald F.
REGISTRATION NUMBER: 30,113
REFERENCE/DOCKET NUMBER: 000324-010
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 854-7400
TELEFAX: (415) 854-8275
INFORMATION FOR SEQ ID NO: 44:
SEQUENCE CHARACTERISTICS:
LENGTH: 35 amino acids
TYPE: amino acid
TOPOLOGY: unknown
MOLECULE TYPE: protein
FEATURE:
NAME/KEY: Modified-site
LOCATION: 35
OTHER INFORMATION: /note= "Where "Xaa" is selected
OTHER INFORMATION: from the group consisting of Hol, Ho, a homoserine
OTHER INFORMATION: amide, or the sequence of amino acids comprising
OTHER INFORMATION: residues 35-84 of PTH."
US-08-142-551B-44

Query Match 90.0%; Score 148.5; DB 1; Length 35;
Best Local Similarity 88.2%; Pred. No. 7.5e-14;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSXRVWLKRLQDVHNY 33
Db 1 SVSEIQLLHNKGKHLNSLXRVWLKRLQDVHNY 34

RESULT 22
US-08-142-551B-45
Sequence 45, Application US/08142551B
Patent No. 5814603
GENERAL INFORMATION:
APPLICANT: Oldenburg, Kevin R.
APPLICANT: Selick, Harold E.
TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
NUMBER OF SEQUENCES: 132
```

```
Patent No. 5814603
GENERAL INFORMATION:
APPLICANT: Oldenburg, Kevin R.
APPLICANT: Selick, Harold E.
TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
NUMBER OF SEQUENCES: 132
CORRESPONDENCE ADDRESS:
ADDRESSEE: Burns, Doane, Swecker & Mathis
STREET: 699 Prince Street
CITY: Alexandria
STATE: Virginia
COUNTRY: US
ZIP: 22313
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/142,551B
FILING DATE: 25-OCT-1993
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/077,296
FILING DATE: 14-JUN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/898,219
FILING DATE: 12-JUN-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/965,677
FILING DATE: 22-OCT-1992
ATTORNEY/AGENT INFORMATION:
NAME: Swiss, Gerald F.
REGISTRATION NUMBER: 30,113
REFERENCE/DOCKET NUMBER: 000324-010
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 854-7400
TELEFAX: (415) 854-8275
INFORMATION FOR SEQ ID NO: 45:
SEQUENCE CHARACTERISTICS:
LENGTH: 35 amino acids
TYPE: amino acid
TOPOLOGY: unknown
MOLECULE TYPE: protein
FEATURE:
NAME/KEY: Modified-site
LOCATION: 35
OTHER INFORMATION: /note= "Where "Xaa" is selected
OTHER INFORMATION: from the group consisting of Hol, Ho, a homoserine
OTHER INFORMATION: amide, or the sequence of amino acids comprising
OTHER INFORMATION: residues 35-84 of PTH."
US-08-142-551B-45

Query Match 90.0%; Score 148.5; DB 1; Length 35;
Best Local Similarity 88.2%; Pred. No. 7.5e-14;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSXRVWLKRLQDVHNY 33
Db 1 SVSEIQLLHNKGKHLNSLXRVWLKRLQDVHNY 34

RESULT 23
US-08-142-551B-46
Sequence 46, Application US/08142551B
Patent No. 5814603
GENERAL INFORMATION:
APPLICANT: Oldenburg, Kevin R.
APPLICANT: Selick, Harold E.
TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
NUMBER OF SEQUENCES: 132
CORRESPONDENCE ADDRESS:
ADDRESSEE: Burns, Doane, Swecker & Mathis
STREET: 699 Prince Street
CITY: Alexandria
STATE: Virginia
COUNTRY: US
ZIP: 22313
```

```
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/142,551B
FILING DATE: 25-OCT-1993
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/077,296
FILING DATE: 14-JUN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/898,219
FILING DATE: 12-JUN-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/965,677
FILING DATE: 22-OCT-1992
ATTORNEY/AGENT INFORMATION:
NAME: Swiss, Gerald F.
REGISTRATION NUMBER: 30,113
REFERENCE/DOCKET NUMBER: 000324-010
TELEPHONE: (415) 854-7400
TELEFAX: (415) 854-8275
INFORMATION FOR SEQ ID NO: 46:
SEQUENCE CHARACTERISTICS:
LENGTH: 35 amino acids
TYPE: amino acid
TOPOLOGY: unknown
MOLECULE TYPE: protein
FEATURE:
NAME/KEY: Modified-site
LOCATION: 35
OTHER INFORMATION: /note= "Xaa" is selected
OTHER INFORMATION: from the group consisting of Hol, Ho, a homoserine
OTHER INFORMATION: amide, or the sequence of amino acids comprising
OTHER INFORMATION: residues 35-84 of PTH."
US-08-142-551B-46

Query Match 90.0%; Score 148.5; DB 1; Length 35;
Best Local Similarity 88.2%; Pred. No. 7.5e-14;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGKHLNSXRVWLKRLQDVHNY 33
Db 1 SVSEIQLLHNGKHLNSLRLVWLKRLQDVHNY 34

RESULT 24
US-08-142-551B-49
Sequence 49, Application US/08142551B
Patent No. 5814603
GENERAL INFORMATION:
APPLICANT: Oldenburg, Kevin R.
APPLICANT: Selick, Harold E.
TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
TITLE OF INVENTION: RECOMBINANT DNA VECTORS ENCODING SAME
NUMBER OF SEQUENCES: 132
CORRESPONDENCE ADDRESS:
ADDRESSEE: Burns, Doane, Swecker & Mathis
STREET: 699 Prince Street
CITY: Alexandria
STATE: Virginia
COUNTRY: US
ZIP: 22313
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/142,551B
```

```
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US 08/077,296
FILING DATE: 14-JUN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/898,219
FILING DATE: 12-JUN-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/965,677
FILING DATE: 22-OCT-1992
ATTORNEY/AGENT INFORMATION:
NAME: Swiss, Gerald F.
REGISTRATION NUMBER: 30,113
REFERENCE/DOCKET NUMBER: 000324-010
TELEPHONE: (415) 854-7400
TELEFAX: (415) 854-8275
INFORMATION FOR SEQ ID NO: 49:
SEQUENCE CHARACTERISTICS:
LENGTH: 35 amino acids
TYPE: amino acid
TOPOLOGY: unknown
MOLECULE TYPE: protein
FEATURE:
NAME/KEY: Modified-site
LOCATION: 35
OTHER INFORMATION: /note= "Xaa" is selected
OTHER INFORMATION: from the group consisting of Hol, Ho, a homoserine
OTHER INFORMATION: amide, or the sequence of amino acids comprising
OTHER INFORMATION: residues 35-84 of PTH."
US-08-142-551B-49

Query Match 90.0%; Score 148.5; DB 1; Length 35;
Best Local Similarity 88.2%; Pred. No. 7.5e-14;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGKHLNSXRVWLKRLQDVHNY 33
Db 1 SVSEIQLLHNGKHLNSLRLVWLKRLQDVHNY 34

RESULT 25
US-08-142-551B-67
Sequence 67, Application US/08142551B
Patent No. 5814603
GENERAL INFORMATION:
APPLICANT: Oldenburg, Kevin R.
APPLICANT: Selick, Harold E.
TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
TITLE OF INVENTION: RECOMBINANT DNA VECTORS ENCODING SAME
NUMBER OF SEQUENCES: 132
CORRESPONDENCE ADDRESS:
ADDRESSEE: Burns, Doane, Swecker & Mathis
STREET: 699 Prince Street
CITY: Alexandria
STATE: Virginia
COUNTRY: US
ZIP: 22313
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/142,551B
FILING DATE: 25-OCT-1993
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/077,296
FILING DATE: 14-JUN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/898,219
```

```
/ FILING DATE: 12-JUN-1992
/ PRIOR APPLICATION DATA: US 07/965,677
/ APPLICATION NUMBER: US 07/965,677
/ FILING DATE: 22-OCT-1992
/ ATTORNEY/AGENT INFORMATION:
/ NAME: Swiss, Gerald F.
/ REGISTRATION NUMBER: 30,113
/ REFERENCE/DOCKET NUMBER: 000324-010
/ TELEPHONE: (415) 854-7400
/ TELEFAX: (415) 854-8275
/ INFORMATION FOR SEQ ID NO: 67:
/ SEQUENCE CHARACTERISTICS:
/ LENGTH: 35 amino acids
/ TYPE: amino acid
/ TOPOLOGY: unknown
/ MOLECULE TYPE: protein
/ FEATURE:
/ NAME/KEY: Modified-site
/ LOCATION: 35
/ OTHER INFORMATION: /note= "Where "Xaa" is selected
/ OTHER INFORMATION: from the group consisting of Hol, Ho, a homoserine
/ OTHER INFORMATION: amide, or the sequence of amino acids comprising
/ OTHER INFORMATION: residues 35-84 of PTH."
US-08-142-551B-67

Query Match 90.0%; Score 148.5; DB 1; Length 35;
Best Local Similarity 88.2%; Pred. No. 7.5e-14;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSXRVWLKRLQDVHNY 33
Db 1 SVSEIQLHLNKGHLNSRVERWLKRLQDVHNY 34

RESULT 26
US-08-142-551B-68
/ Sequence 68, Application US/08142551B
/ Patent No. 5814603
/ GENERAL INFORMATION:
/ APPLICANT: Oldenburg, Kevin R.
/ APPLICANT: Selick, Harold E.
/ TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
/ TITLE OF INVENTION: RECOMBINANT DNA VECTORS ENCODING SAME
/ NUMBER OF SEQUENCES: 132
/ CORRESPONDENCE ADDRESS:
/ ADDRESSEE: Burns, Doane, Swecker & Mathis
/ STREET: 699 Prince Street
/ CITY: Alexandria
/ STATE: Virginia
/ COUNTRY: US
/ ZIP: 22313
/ COMPUTER READABLE FORM:
/ MEDIUM TYPE: Floppy disk
/ COMPUTER: IBM PC compatible
/ OPERATING SYSTEM: PC-DOS/MS-DOS
/ SOFTWARE: PatentIn Release #1.0, Version #1.25
/ CURRENT APPLICATION DATA:
/ FILING DATE: 25-OCT-1993
/ CLASSIFICATION: 435
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 08/142,551B
/ FILING DATE: 12-JUN-1992
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 07/965,677
/ FILING DATE: 22-OCT-1992
/ ATTORNEY/AGENT INFORMATION:
/ NAME: Swiss, Gerald F.
/ REGISTRATION NUMBER: 30,113
/ REFERENCE/DOCKET NUMBER: 000324-010
/ TELECOMMUNICATION INFORMATION:
/ TELEPHONE: (415) 854-7400
/ TELEFAX: (415) 854-8275
/ INFORMATION FOR SEQ ID NO: 70:
/ SEQUENCE CHARACTERISTICS:
/ LENGTH: 35 amino acids

/ FILING DATE: 12-JUN-1992
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 07/965,677
/ FILING DATE: 22-OCT-1992
/ ATTORNEY/AGENT INFORMATION:
/ NAME: Swiss, Gerald F.
/ REGISTRATION NUMBER: 30,113
/ REFERENCE/DOCKET NUMBER: 000324-010
/ TELECOMMUNICATION INFORMATION:
/ TELEPHONE: (415) 854-7400
/ TELEFAX: (415) 854-8275
/ INFORMATION FOR SEQ ID NO: 70:
/ SEQUENCE CHARACTERISTICS:
/ LENGTH: 35 amino acids
```

;
; TYPE: amino acid
; TOPOLOGY: unknown
; MOLECULE TYPE: protein
; FEATURE:
; NAME/KEY: Modified-site
; LOCATION: 35
; OTHER INFORMATION: /note= "Xaa" is selected
; OTHER INFORMATION: from the group consisting of Hol, Ho, a homoserine
; OTHER INFORMATION: amide, or the sequence of amino acids comprising
; OTHER INFORMATION: residues 35-84 of PTH."
US-08-142-551B-70

Query Match 90.0%; Score 148.5; DB 1; Length 35;
Best Local Similarity 88.2%; Pred. No. 7.5e-14;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGKHLNSXRVWLKRLKQDVHNY 33
Db 1 SVSEIQLLNLHGKHLNSLVRVWLKRLKQDVHNY 34

RESULT 28
US-08-142-551B-73
; Sequence 73, Application US/08142551B
; Patent No. 5814603
; GENERAL INFORMATION:
; APPLICANT: Oldenburg, Kevin R.
; APPLICANT: Selick, Harold E.
; TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
; TITLE OF INVENTION: RECOMBINANT DNA VECTORS ENCODING SAME
; NUMBER OF SEQUENCES: 132
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Burns, Doane, Swecker & Mathis
; STREET: 699 Prince Street
; CITY: Alexandria
; STATE: Virginia
; COUNTRY: US
; ZIP: 22313

COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent in Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/142,551B
; FILING DATE: 25-OCT-1993
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/077,296
; FILING DATE: 14-JUN-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/898,219
; FILING DATE: 12-JUN-1992

; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/965,677
; FILING DATE: 22-OCT-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Swiss, Gerald F.
; REGISTRATION NUMBER: 30,113
; REFERENCE/DOCKET NUMBER: 000324-010
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 854-7400
; TELEFAX: (415) 854-8275
; INFORMATION FOR SEQ ID NO: 73:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 35 amino acids
; TYPE: amino acid
; TOPOLOGY: unknown
; MOLECULE TYPE: protein
; FEATURE:
; NAME/KEY: Modified-site
; LOCATION: 35
; OTHER INFORMATION: /note= "Xaa" is selected

;
; OTHER INFORMATION: from the group consisting of Hol, Ho, a homoserine
; OTHER INFORMATION: amide, or the sequence of amino acids comprising
; OTHER INFORMATION: residues 35-84 of PTH."
US-08-142-551B-73

Query Match 90.0%; Score 148.5; DB 1; Length 35;
Best Local Similarity 88.2%; Pred. No. 7.5e-14;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGKHLNSXRVWLKRLKQDVHNY 33
Db 1 SVSEIQLLNLHGKHLNSLVRVWLKRLKQDVHNY 34

RESULT 29
US-08-142-551B-80
; Sequence 80, Application US/08142551B
; Patent No. 5814603
; GENERAL INFORMATION:
; APPLICANT: Oldenburg, Kevin R.
; APPLICANT: Selick, Harold E.
; TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
; TITLE OF INVENTION: RECOMBINANT DNA VECTORS ENCODING SAME
; NUMBER OF SEQUENCES: 132
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Burns, Doane, Swecker & Mathis
; STREET: 699 Prince Street
; CITY: Alexandria
; STATE: Virginia
; COUNTRY: US
; ZIP: 22313

COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent in Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/142,551B
; FILING DATE: 25-OCT-1993
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/077,296
; FILING DATE: 14-JUN-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/898,219
; FILING DATE: 12-JUN-1992

; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/965,677
; FILING DATE: 22-OCT-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Swiss, Gerald F.
; REGISTRATION NUMBER: 30,113
; REFERENCE/DOCKET NUMBER: 000324-010
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 854-7400
; TELEFAX: (415) 854-8275
; INFORMATION FOR SEQ ID NO: 80:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 35 amino acids
; TYPE: amino acid
; TOPOLOGY: unknown
; MOLECULE TYPE: protein
; FEATURE:
; NAME/KEY: Modified-site
; LOCATION: 35

; OTHER INFORMATION: /note= "Xaa" is selected
; OTHER INFORMATION: from the group consisting of Hol, Ho, a homoserine
; OTHER INFORMATION: amide, or the sequence of amino acids comprising
; OTHER INFORMATION: residues 35-84 of PTH."
US-08-142-551B-80

Query Match 90.0%; Score 148.5; DB 1; Length 35;
Best Local Similarity 88.2%; Pred. No. 7.5e-14;

Qy

1 SVSEIQ-XHNXGHLNSXERVEWLFKKLQDVHNY 33
||||| || |

Dd

1 SVSEIQLLNLTGKHLNLSLERVEWLFKKLQDVHNY 34
||||| || |

RESULT 32
US-08-468-275-4
; Sequence 4, Application US/08468275
; Patent No. 5747453
; GENERAL INFORMATION:
; APPLICANT: HOLLADAY, LESLIE A.
; APPLICANT: OLDENBURG, KEVIN R.

;; TITLE OF INVENTION: METHOD FOR INCREASING THE
;; TITLE OF INVENTION: ELECTROTRANSPORT FLUX OF POLYPEPTIDES
;; NUMBER OF SEQUENCES: 10
;; CORRESPONDENCE ADDRESS:
;; ADDRESSEE: ALZA CORPORATION
;; STREET: 950 PAGE MILL ROAD
;; CITY: PALO ALTO
;; STATE: CALIFORNIA
;; COUNTRY: USA
;; ZIP: 94303-0802
;; COMPUTER READABLE FORM:
;; MEDIUM TYPE: Floppy disk
;; COMPUTER: IBM PC compatible
;; OPERATING SYSTEM: PC-DOS/MS-DOS
;; SOFTWARE: PatentIn Release #1.0, Version #1.30
;; CURRENT APPLICATION DATA:
;; APPLICATION NUMBER: US/08/468,275
;; FILING DATE: 06-JUN-1995
;; CLASSIFICATION: 514
;; ATTORNEY/AGENT INFORMATION:
;; NAME: MILLER, D. BYRON
;; REGISTRATION NUMBER: 30,661
;; REFERENCE/DOCKET NUMBER: 0360-0002; ARC-2349
;; TELECOMMUNICATION INFORMATION:
;; TELEPHONE: (415) 496-8150
;; TELEFAX: (415) 496-8048
;; INFORMATION FOR SEQ ID NO: 4:
;; SEQUENCE CHARACTERISTICS:
;; LENGTH: 44 amino acids
;; TYPE: amino acid
;; TOPOLOGY: linear
;; MOLECULE TYPE: protein
US-08-468-275-4

Query Match 90.0%; Score 148.5; DB 1; Length 44;
Best Local Similarity 88.2%; Pred. No. 9.6e-14;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGKHLNSXERVELRKKLQDVHNY 33
||||| ||||||| ||||||| ||||||| |||||||
Db 7 SVSEIQLLHNLGKHLNSLSEVWLRLKKLQDVHNY 40

RESULT 33
US-09-007-466-4
; Sequence 4, Application US/09007466
; Patent No. 6313092
; GENERAL INFORMATION:
; APPLICANT: HOLLADAY, LESLIE A.
; APPLICANT: OLDENBURG, KEVIN R.
; TITLE OF INVENTION: METHOD FOR INCREASING THE
; TITLE OF INVENTION: ELECTROTRANSPORT FLUX OF POLYPEPTIDES
; NUMBER OF SEQUENCES: 10
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: ALZA CORPORATION
; STREET: 950 PAGE MILL ROAD
; CITY: PALO ALTO
; STATE: CALIFORNIA
; COUNTRY: USA
; ZIP: 94303-0802
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/007,466
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/468,275
; FILING DATE: 06-JUN-1995
; ATTORNEY/AGENT INFORMATION:

;; NAME: MILLER, D. BYRON
;; REGISTRATION NUMBER: 30,661
;; REFERENCE/DOCKET NUMBER: 0360-0002; ARC-2349
;; TELECOMMUNICATION INFORMATION:
;; TELEPHONE: (415) 496-8150
;; TELEFAX: (415) 496-8048
;; INFORMATION FOR SEQ ID NO: 4:
;; SEQUENCE CHARACTERISTICS:
;; LENGTH: 44 amino acids
;; TYPE: amino acid
;; TOPOLOGY: linear
;; MOLECULE TYPE: protein
US-09-007-466-4

Query Match 90.0%; Score 148.5; DB 2; Length 44;
Best Local Similarity 88.2%; Pred. No. 9.6e-14;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGKHLNSXERVELRKKLQDVHNY 33
||||| ||||||| ||||||| ||||||| |||||||
Db 7 SVSEIQLLHNLGKHLNSLSEVWLRLKKLQDVHNY 40

RESULT 34
US-08-952-980B-4
; Sequence 4, Application US/08952980B
; Patent No. 6333189
; GENERAL INFORMATION:
; APPLICANT: HOLLADAY, LESLIE A.
; APPLICANT: OLDENBURG, KEVIN R.
; TITLE OF INVENTION: METHOD FOR INCREASING THE
; TITLE OF INVENTION: ELECTROTRANSPORT FLUX OF POLYPEPTIDES
; NUMBER OF SEQUENCES: 12
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: ALZA CORPORATION
; STREET: 950 PAGE MILL ROAD
; CITY: PALO ALTO
; STATE: CALIFORNIA
; COUNTRY: USA
; ZIP: 94303-0802
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/952,980B
; FILING DATE: 20-NOV-1997
; CLASSIFICATION: 530
; ATTORNEY/AGENT INFORMATION:
; NAME: MILLER, D. BYRON
; REGISTRATION NUMBER: 30,661
; REFERENCE/DOCKET NUMBER: 2349 CIP 1
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (650) 496-8150
; TELEFAX: (650) 496-8048
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 44 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-952-980B-4

Query Match 90.0%; Score 148.5; DB 2; Length 44;
Best Local Similarity 88.2%; Pred. No. 9.6e-14;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGKHLNSXERVELRKKLQDVHNY 33
||||| ||||||| ||||||| ||||||| |||||||
Db 7 SVSEIQLLHNLGKHLNSLSEVWLRLKKLQDVHNY 40

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RESULT 35
US-08-142-551B-9
; Sequence 9, Application US/08142551B
; Patent No. 5814603
; GENERAL INFORMATION:
; APPLICANT: Oldenburg, Kevin R.
; APPLICANT: Selick, Harold E.
; TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
; RECOMBINANT DNA VECTORS ENCODING SAME
; NUMBER OF SEQUENCES: 132
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Burns, Doane, Swecker & Mathis
; STREET: 699 Prince Street
; CITY: Alexandria
; STATE: Virginia
; COUNTRY: US
; ZIP: 22313
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/142,551B
; FILING DATE: 25-OCT-1993
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/077,296
; FILING DATE: 14-JUN-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/898,219
; FILING DATE: 12-JUN-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/965,677
; FILING DATE: 22-OCT-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Swiss, Gerald F.
; REGISTRATION NUMBER: 30,113
; REFERENCE/DOCKET NUMBER: 000324-010
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 854-7400
; TELEFAX: (415) 854-8275
; INFORMATION FOR SEQ ID NO: 9:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 67 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-142-551B-9

Query Match          90.0%; Score 148.5; DB 1; Length 67;
Best Local Similarity 88.2%; Pred. No. 1.5e-13;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;

Qy      1 SVSEIQ-XHNKGKHLNSXERVELRKKLQDVHNY 33
Db      24 SVSEIQLLNLGKHLNSLSEVWLRKKLQDVHNY 57

RESULT 36
US-08-142-551B-30
; Sequence 30, Application US/08142551B
; Patent No. 5814603
; GENERAL INFORMATION:
; APPLICANT: Oldenburg, Kevin R.
; APPLICANT: Selick, Harold E.
; TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
; RECOMBINANT DNA VECTORS ENCODING SAME
; NUMBER OF SEQUENCES: 132
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Burns, Doane, Swecker & Mathis
; STREET: 699 Prince Street
; CITY: Alexandria
```

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; STATE: Virginia
; COUNTRY: US
; ZIP: 22313
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/142,551B
; FILING DATE: 25-OCT-1993
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/077,296
; FILING DATE: 14-JUN-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/898,219
; FILING DATE: 12-JUN-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/965,677
; FILING DATE: 22-OCT-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Swiss, Gerald F.
; REGISTRATION NUMBER: 30,113
; REFERENCE/DOCKET NUMBER: 000324-010
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 854-7400
; TELEFAX: (415) 854-8275
; INFORMATION FOR SEQ ID NO: 30:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 35 amino acids
; TYPE: amino acid
; TOPOLOGY: unknown
; MOLECULE TYPE: protein
; FEATURE:
; NAME/KEY: Modified-site
; LOCATION: 35
; OTHER INFORMATION: /note="Where "Xaa" is selected
; OTHER INFORMATION: from the group consisting of Hol, Ho, a homoserine
; OTHER INFORMATION: amide, or the sequence of amino acids comprising
; OTHER INFORMATION: residues 35-84 of PTH."
US-08-142-551B-30

Query Match          88.2%; Score 145.5; DB 1; Length 35;
Best Local Similarity 85.3%; Pred. No. 2e-13;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

Qy      1 SVSEIQ-XHNKGKHLNSXERVELRKKLQDVHNY 33
Db      1 SVSEIQLLNLGKHLNSLSEVWLRKKLQDVHNY 34

RESULT 37
US-08-142-551B-50
; Sequence 50, Application US/08142551B
; Patent No. 5814603
; GENERAL INFORMATION:
; APPLICANT: Oldenburg, Kevin R.
; APPLICANT: Selick, Harold E.
; TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
; RECOMBINANT DNA VECTORS ENCODING SAME
; NUMBER OF SEQUENCES: 132
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Burns, Doane, Swecker & Mathis
; STREET: 699 Prince Street
; CITY: Alexandria
; STATE: Virginia
; COUNTRY: US
; ZIP: 22313
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
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SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/142,551B
FILING DATE: 25-OCT-1993
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/077,296
FILING DATE: 14-JUN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/898,219
FILING DATE: 12-JUN-1992
PRIOR APPLICATION DATA: US 07/965,677
FILING DATE: 22-OCT-1992
ATTORNEY/AGENT INFORMATION:
NAME: Swiss, Gerald F.
REGISTRATION NUMBER: 30,113
REFERENCE/DOCKET NUMBER: 000324-010
TELEPHONE: (415) 854-7400
TELEFAX: (415) 854-8275
INFORMATION FOR SEQ ID NO: 50:
SEQUENCE CHARACTERISTICS:
LENGTH: 35 amino acids
TYPE: amino acid
TOPOLOGY: unknown
MOLECULE TYPE: protein
FEATURE:
NAME/KEY: Modified-site
LOCATION: 35
OTHER INFORMATION: /note= "Xaa" is selected
OTHER INFORMATION: from the group consisting of Hol, Ho, a homoserine
OTHER INFORMATION: amide, or the sequence of amino acids comprising
OTHER INFORMATION: residues 35-84 of PTH."
US-08-142-551B-50
Query Match 88.2%; Score 145.5; DB 1; Length 35;
Best Local Similarity 85.3%; Pred. No. 2e-13;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;
QY 1 SVSEIQ-XHXGKHLNSXRVWLKRLQDVHNY 33
DB 1 SVSEIQLLHNLGKHLNSLKVWLKRLQDVHNY 34
RESULT 38
US-08-142-551B-72
Sequence 72, Application US/08142551B
Patent No. 5814603
GENERAL INFORMATION:
APPLICANT: Oldenburg, Kevin R.
APPLICANT: Selick, Harold E.
TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
NUMBER OF INVENTION: RECOMBINANT DNA VECTORS ENCODING SAME
NUMBER OF SEQUENCES: 132
CORRESPONDENCE ADDRESS:
ADDRESSEE: Burns, Doane, Swecker & Mathis
STREET: 699 Prince Street
CITY: Alexandria
STATE: Virginia
COUNTRY: US
ZIP: 22313
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/142,551B
FILING DATE: 25-OCT-1993
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/077,296

FILING DATE: 14-JUN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/898,219
FILING DATE: 12-JUN-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/965,677
FILING DATE: 22-OCT-1992
ATTORNEY/AGENT INFORMATION:
NAME: Swiss, Gerald F.
REGISTRATION NUMBER: 30,113
REFERENCE/DOCKET NUMBER: 000324-010
TELEPHONE: (415) 854-7400
TELEFAX: (415) 854-8275
INFORMATION FOR SEQ ID NO: 72:
SEQUENCE CHARACTERISTICS:
LENGTH: 35 amino acids
TYPE: amino acid
TOPOLOGY: unknown
MOLECULE TYPE: protein
FEATURE:
NAME/KEY: Modified-site
LOCATION: 35
OTHER INFORMATION: /note= "Xaa" is selected
OTHER INFORMATION: from the group consisting of Hol, Ho, a homoserine
OTHER INFORMATION: amide, or the sequence of amino acids comprising
OTHER INFORMATION: residues 35-84 of PTH."
US-08-142-551B-72
Query Match 88.2%; Score 145.5; DB 1; Length 35;
Best Local Similarity 85.3%; Pred. No. 2e-13;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;
QY 1 SVSEIQ-XHXGKHLNSXRVWLKRLQDVHNY 33
DB 1 SVSEIQLLHNLGKHLNSLKVWLKRLQDVHNY 34
RESULT 39
US-08-142-551B-88
Sequence 88, Application US/08142551B
Patent No. 5814603
GENERAL INFORMATION:
APPLICANT: Oldenburg, Kevin R.
APPLICANT: Selick, Harold E.
TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
NUMBER OF INVENTION: RECOMBINANT DNA VECTORS ENCODING SAME
NUMBER OF SEQUENCES: 132
CORRESPONDENCE ADDRESS:
ADDRESSEE: Burns, Doane, Swecker & Mathis
STREET: 699 Prince Street
CITY: Alexandria
STATE: Virginia
COUNTRY: US
ZIP: 22313
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/142,551B
FILING DATE: 25-OCT-1993
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/077,296
FILING DATE: 14-JUN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/898,219
FILING DATE: 12-JUN-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/965,677
FILING DATE: 22-OCT-1992

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/ ATTORNEY/AGENT INFORMATION:
/ NAME: Swiss, Gerald F.
/ REGISTRATION NUMBER: 30,113
/ REFERENCE/DOCKET NUMBER: 000324-010
/ TELECOMMUNICATION INFORMATION:
/ TELEPHONE: (415) 854-7400
/ TELEFAX: (415) 854-8275
/ INFORMATION FOR SEQ ID NO: 88:
/ SEQUENCE CHARACTERISTICS:
/ LENGTH: 35 amino acids
/ TYPE: amino acid
/ TOPOLOGY: unknown
/ MOLECULE TYPE: protein
/ FEATURE:
/ NAME/KEY: Modified-site
/ LOCATION: 35
/ OTHER INFORMATION: /note= "Where "Xaa" is selected
/ OTHER INFORMATION: from the group consisting of Hol, Ho, a homoserine
/ OTHER INFORMATION: amide, or the sequence of amino acids comprising
/ OTHER INFORMATION: residues 35-84 of PTH."
US-08-142-551B-88

Query Match      88.2%; Score 145.5; DB 1; Length 35;
Best Local Similarity 85.3%; Pred. No. 2e-13;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKKGHLNSXERVELRKKLQDVHNY 33
    ||||| ||||| ||||| ||||| |||||
Db 1 SVSEIQLLHNLGKHLNSLSEVWLRLKRLQDVHNY 34
    ||||| ||||| ||||| ||||| |||||

RESULT 40
US-08-142-551B-91
/ Sequence 91, Application US/08142551B
/ Patent No. 5814603
/ GENERAL INFORMATION:
/ APPLICANT: Qidenburg, Kevin R.
/ APPLICANT: Selick, Harold E.
/ TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
/ TITLE OF INVENTION: RECOMBINANT DNA VECTORS ENCODING SAME
/ NUMBER OF SEQUENCES: 132
/ CORRESPONDENCE ADDRESS:
/ ADDRESSEE: Burns, Doane, Swecker & Mathis
/ STREET: 699 Prince Street
/ CITY: Alexandria
/ STATE: Virginia
/ COUNTRY: US
/ ZIP: 22313
/ COMPUTER READABLE FORM:
/ MEDIUM TYPE: Floppy disk
/ COMPUTER: IBM PC compatible
/ OPERATING SYSTEM: PC-DOS/MS-DOS
/ SOFTWARE: PatentIn Release #1.0, Version #1.25
/ CURRENT APPLICATION DATA:
/ APPLICATION NUMBER: US/08/142,551B
/ FILING DATE: 25-OCT-1993
/ CLASSIFICATION: 435
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 08/077,296
/ FILING DATE: 14-JUN-1993
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 07/898,219
/ FILING DATE: 12-JUN-1992
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 07/965,677
/ FILING DATE: 22-OCT-1992
/ ATTORNEY/AGENT INFORMATION:
/ NAME: Swiss, Gerald F.
/ REGISTRATION NUMBER: 30,113
/ REFERENCE/DOCKET NUMBER: 000324-010
/ TELECOMMUNICATION INFORMATION:
/ TELEPHONE: (415) 854-7400
/ TELEFAX: (415) 854-8275
```

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/ INFORMATION FOR SEQ ID NO: 91:
/ SEQUENCE CHARACTERISTICS:
/ LENGTH: 35 amino acids
/ TYPE: amino acid
/ TOPOLOGY: unknown
/ MOLECULE TYPE: protein
/ FEATURE:
/ NAME/KEY: Modified-site
/ LOCATION: 35
/ OTHER INFORMATION: /note= "Where "Xaa" is selected
/ OTHER INFORMATION: from the group consisting of Hol, Ho, a homoserine
/ OTHER INFORMATION: amide, or the sequence of amino acids comprising
/ OTHER INFORMATION: residues 35-84 of PTH."
US-08-142-551B-91

Query Match      88.2%; Score 145.5; DB 1; Length 35;
Best Local Similarity 85.3%; Pred. No. 2e-13;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKKGHLNSXERVELRKKLQDVHNY 33
    ||||| ||||| ||||| ||||| |||||
Db 1 SVSEIQLLHNLGKHLNSLSEVWLRLKRLQDVHNY 34
    ||||| ||||| ||||| ||||| |||||

Search completed: January 28, 2006, 01:17:38
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OM protein - protein search, using sw model

Run on: January 28, 2006, 01:16:04 ; Search time 62 Seconds
(without alignments)
222.393 Million cell updates/sec

Title: US-09-674-597A-16

Perfect score: 165

Sequence: 1 SVSEIQXHNKXGKHLNSXERVWLKKLDQVHNY 33

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1867569 seqs, 417829326 residues

Total number of hits satisfying chosen parameters: 1867569

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 100 summaries

Database : Published Applications_AA_Main:*

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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4	148.5	90.0	34	3	US-09-999-608-21
5	148.5	90.0	34	4	US-10-311-366-15
6	148.5	90.0	34	4	US-10-839-037-21
7	148.5	90.0	34	5	US-10-428-377-45
8	148.5	90.0	34	5	US-10-718-071-14
9	144.5	87.6	34	3	US-09-169-786-3
10	144.5	87.6	34	3	US-09-858-880-5
11	144.5	87.6	34	3	US-09-928-047B-6
12	144.5	87.6	34	3	US-09-843-221A-16
13	144.5	87.6	34	3	US-09-843-221A-17
14	144.5	87.6	34	3	US-09-843-221A-18
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75	144.5	87.6	38	3	US-09-843-221A-14
76	144.5	87.6	38	3	US-09-999-608-14
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78	144.5	87.6	38	4	US-10-398-449-20
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92	144.5	87.6	44	3	US-09-843-221A-13
93	144.5	87.6	44	3	US-09-999-608-13
94	144.5	87.6	44	4	US-10-398-449-44
95	144.5	87.6	44	4	US-10-311-366-19
96	144.5	87.6	44	4	US-10-839-037-13
97	144.5	87.6	44	5	US-10-892-025-14
98	144.5	87.6	44	6	US-11-066-697-276
99	144.5	87.6	45	6	US-11-066-697-285
100	144.5	87.6	46	4	US-10-325-021-18

```
ALIGNMENTS

RESULT 1
US-11-066-697-264
; Sequence 264, Application US/11066697
; Publication No. US20050187159A1
; GENERAL INFORMATION:
; APPLICANT: Bridon, Dominique P.
; APPLICANT: Ezrin, Alan M.
; APPLICANT: Milner, Peter G.
; APPLICANT: Holmes, Darren L.
; APPLICANT: Thibadeau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; FILE REFERENCE: 500862002301
; CURRENT APPLICATION NUMBER: US/11/066,697
; PRIOR FILING DATE: 2005-02-25
; PRIOR APPLICATION NUMBER: 09/657,276
; PRIOR FILING DATE: 2000-09-07
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-15
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 264
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
US-11-066-697-264

Query Match          90.6%; Score 149.5; DB 6; Length 32;
Best Local Similarity 90.9%; Pred. No. 1.9e-13;
Matches 30; Conservative 0; Mismatches 2; Indels 1; Gaps 1;

QY 1 SVSEIQXHNKXGKHLNSERVEWLRKKLQDVHNY 33
    ||||| ||||| ||||| ||||| ||||| |||||
Db 1 SVSEIQLHNLGKHLNS-ERVEWLRKKLQDVHNY 32

RESULT 2
US-11-066-697-265
; Sequence 265, Application US/11066697
; Publication No. US20050187159A1
; GENERAL INFORMATION:
; APPLICANT: Bridon, Dominique P.
; APPLICANT: Ezrin, Alan M.
; APPLICANT: Milner, Peter G.
; APPLICANT: Holmes, Darren L.
; APPLICANT: Thibadeau, Karen
; TITLE OF INVENTION: PROTECTION OF ENDOGENOUS THERAPEUTIC PEPTIDES FROM
; TITLE OF INVENTION: PEPTIDASE ACTIVITY THROUGH CONJUGATION TO BLOOD
; FILE REFERENCE: 500862002301
; CURRENT APPLICATION NUMBER: US/11/066,697
; PRIOR FILING DATE: 2005-02-25
; PRIOR APPLICATION NUMBER: 09/657,276
; PRIOR FILING DATE: 2000-09-07
; PRIOR APPLICATION NUMBER: 60/153,406
; PRIOR FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: 60/159,783
; PRIOR FILING DATE: 1999-10-15
; NUMBER OF SEQ ID NOS: 1617
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 265
; LENGTH: 32
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Peptide
US-11-066-697-265

Query Match          90.6%; Score 149.5; DB 6; Length 32;
Best Local Similarity 90.9%; Pred. No. 1.9e-13;
Matches 30; Conservative 0; Mismatches 2; Indels 1; Gaps 1;

QY 1 SVSEIQXHNKXGKHLNSERVEWLRKKLQDVHNY 33
    ||||| ||||| ||||| ||||| ||||| |||||
Db 1 SVSEIQLHNLGKHLNS-ERVEWLRKKLQDVHNY 32

RESULT 3
US-09-843-221A-21
; Sequence 21, Application US/09843221A
; Publication No. US20030039654A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: RELATED PROTEIN
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 21
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTH
US-09-843-221A-21

Query Match          90.0%; Score 148.5; DB 3; Length 34;
Best Local Similarity 88.2%; Pred. No. 2.8e-13;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKXGKHLNSERVEWLRKKLQDVHNY 33
    ||||| ||||| ||||| ||||| ||||| |||||
Db 1 SVSEIQLHNLGKHLNSERVEWLRKKLQDVHNY 34

RESULT 4
US-09-999-608-21
; Sequence 21, Application US/09999608
; Publication No. US20050124537A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: GEGG, COLIN V.
; APPLICANT: JAROSINSKI, MARK ANTHONY
; APPLICANT: KINSTLER, OLAF BORIS
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: HORMONE-RELATED PROTEIN
; FILE REFERENCE: A-665C
; CURRENT APPLICATION NUMBER: US/09/999,608
; CURRENT FILING DATE: 2002-03-11
; PRIOR APPLICATION NUMBER: US 09/843,221
; PRIOR FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: US 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: US 60/214,860
```

;
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: US 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 193
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 21
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTH
US-09-999-608-21

Query Match 90.0%; Score 148.5; DB 3; Length 34;
Best Local Similarity 88.2%; Pred. No. 2.8e-13;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGKHLNSXERVEWLRKKLQDVHNY 33
Db 1 SVSEIQLHLNGLKHLNSLSEVWLRKKLQDVHNY 34

RESULT 5

US-10-311-366-15
; Sequence 15, Application US/10311366
; Publication No. US2004022838A1
; GENERAL INFORMATION:

; APPLICANT: Holick, Michael F.
; TITLE OF INVENTION: Regulation Of Cell Proliferation And Differentiation Using Topical
; TITLE OF INVENTION: Applied Peptides
; FILE REFERENCE: 1539.0310001
; CURRENT APPLICATION NUMBER: US/10/311,366
; PRIOR FILING DATE: 2002-12-16
; PRIOR APPLICATION NUMBER: PCT/US01/19650
; PRIOR FILING DATE: 2001-06-20
; PRIOR APPLICATION NUMBER: US 60/213,247
; PRIOR FILING DATE: 2000-06-22
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 15
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (8)..(8)
; OTHER INFORMATION: Nle
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (18)..(18)
; OTHER INFORMATION: Nle
; FEATURE:
; NAME/KEY: misc.feature
; OTHER INFORMATION: [Nle8,18, Tyr34] hPTH (1-34)

US-10-311-366-15

Query Match 90.0%; Score 148.5; DB 4; Length 34;
Best Local Similarity 94.1%; Pred. No. 2.8e-13;
Matches 32; Conservative 0; Mismatches 1; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGKHLNSXERVEWLRKKLQDVHNY 33
Db 1 SVSEIQLHLNGLKHLNSLSEVWLRKKLQDVHNY 34

RESULT 6

US-10-839-037-21
; Sequence 21, Application US/10839037
; Publication No. US20040214996A1
; GENERAL INFORMATION:

; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE

;
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID
; TITLE OF INVENTION: RELATED PROTEIN
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/10/839,037
; CURRENT FILING DATE: 2004-05-04
; PRIOR APPLICATION NUMBER: US/09/843,221A
; PRIOR FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 21
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTH
US-10-839-037-21

Query Match 90.0%; Score 148.5; DB 4; Length 34;
Best Local Similarity 88.2%; Pred. No. 2.8e-13;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGKHLNSXERVEWLRKKLQDVHNY 33
Db 1 SVSEIQLHLNGLKHLNSLSEVWLRKKLQDVHNY 34

RESULT 7

US-10-428-377-45
; Sequence 45, Application US/10428377
; Publication No. US20040220094A1
; GENERAL INFORMATION:

; APPLICANT: Skinner, Keith
; TITLE OF INVENTION: INVERSE AGONIST AND AGONIST PEPTIDES
; TITLE OF INVENTION: THAT STIMULATE/INHIBIT HAIR GROWTH
; FILE REFERENCE: 549042000100
; CURRENT APPLICATION NUMBER: US/10/428,377
; CURRENT FILING DATE: 2003-05-01
; NUMBER OF SEQ ID NOS: 48
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 45
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: 8
; OTHER INFORMATION: Nle
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: 18
; OTHER INFORMATION: Nle
; OTHER INFORMATION: Nle
US-10-428-377-45

Query Match 90.0%; Score 148.5; DB 5; Length 34;
Best Local Similarity 94.1%; Pred. No. 2.8e-13;
Matches 32; Conservative 0; Mismatches 1; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGKHLNSXERVEWLRKKLQDVHNY 33
Db 1 SVSEIQLHLNGLKHLNSLSEVWLRKKLQDVHNY 34

RESULT 8

US-10-718-071-14
; Sequence 14, Application US/10718071
; Publication No. US20050009847A1
; GENERAL INFORMATION:

APPLICANT: Bertilsson, Goran
APPLICANT: Erlandsson, Rikard
APPLICANT: Erisen, Jonas
APPLICANT: Haegerstrand, Anders
APPLICANT: Heilrich, Jessica
APPLICANT: Hellstrom, Kristina
APPLICANT: Hagglad, Johan
APPLICANT: Jansson, Katarina
APPLICANT: Korteasaa, Jarkko
APPLICANT: Lindquist, Per
APPLICANT: Lundh, Hanna
APPLICANT: McGuire, Jacqueline
APPLICANT: Mercer, Alex
APPLICANT: Nyberg, Karl
APPLICANT: Ossolinak, Anina
APPLICANT: Patrone, Cesare
APPLICANT: Ronnholm, Harriet
APPLICANT: Warkstrom, Lillian
APPLICANT: Zachrisson, Olof
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR INCREASING NEUROGENESIS
FILE REFERENCE: 21882-517 UTIL
CURRENT APPLICATION NUMBER: US/10/718,071
PRIOR FILING DATE: 2003-11-20
PRIOR APPLICATION NUMBER: US 60/427,912
PRIOR FILING DATE: 2002-11-20
NUMBER OF SEQ ID NOS: 71
SOFTWARE: PatentIn version 3.2
SEQ ID NO 14
LENGTH: 34
TYPE: PRT
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: misc.feature
LOCATION: (8)..(8)
OTHER INFORMATION: norleucine
FEATURE:
NAME/KEY: misc.feature
LOCATION: (18)..(18)
OTHER INFORMATION: norleucine
US-10-718-071-14

Query Match 90.0%; Score 148.5; DB 5; Length 34;
Best Local Similarity 94.1%; Pred. No. 2.8e-13;
Matches 32; Conservative 0; Mismatches 1; Indels 1; Gaps 1;

*QY 1 SVSEIQ-XHNKGKHLNSXERVWLKKLQDVHNY 33
Db 1 SVSEIQLMHNLGKHLNSMERVWLKKLQDVHNF 34

RESULT 9
US-09-169-786-3
Sequence 3, Application US/09169786B
Patent No. US20020025929A1
GENERAL INFORMATION:
APPLICANT: Sato, Masahiko
TITLE OF INVENTION: METHOD OF BUILDING AND MAINTAINING BONE
FILE REFERENCE: X-11480
CURRENT APPLICATION NUMBER: US/09/169,786B
PRIOR FILING DATE: 1998-10-09
EARLIER APPLICATION NUMBER: US 60/061,800
PRIOR FILING DATE: 1997-10-14
NUMBER OF SEQ ID NOS: 12
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 3
LENGTH: 34
TYPE: PRT
ORGANISM: Homo sapiens
US-09-169-786-3

Query Match 87.6%; Score 144.5; DB 3; Length 34;
Best Local Similarity 85.3%; Pred. No. 1e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSXERVWLKKLQDVHNY 33
Db 1 SVSEIQLMHNLGKHLNSMERVWLKKLQDVHNF 34

RESULT 10
US-09-858-880-5
Sequence 5, Application US/0985880
Publication No. US20020061838A1
GENERAL INFORMATION:
APPLICANT: Holmquist, Barton
APPLICANT: Dormady, Daniel
TITLE OF INVENTION: Peptide Pharmaceutical Formulations
FILE REFERENCE: 1627.020US1
CURRENT APPLICATION NUMBER: US/09/858,880
PRIOR FILING DATE: 2001-05-17
PRIOR APPLICATION NUMBER: US 60/205,377
PRIOR FILING DATE: 2000-05-17
PRIOR APPLICATION NUMBER: US 60/205,262
PRIOR FILING DATE: 2000-05-19
NUMBER OF SEQ ID NOS: 13
SOFTWARE: FastSeq for Windows Version 4.0
SEQ ID NO 5
LENGTH: 34
TYPE: PRT
ORGANISM: Homo sapiens
US-09-858-880-5

Query Match 87.6%; Score 144.5; DB 3; Length 34;
Best Local Similarity 85.3%; Pred. No. 1e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSXERVWLKKLQDVHNY 33
Db 1 SVSEIQLMHNLGKHLNSMERVWLKKLQDVHNF 34

RESULT 11
US-09-928-047B-6
Sequence 6, Application US/09928047B
Patent No. US20020160945A1
GENERAL INFORMATION:
APPLICANT: Cantor, Thomas
TITLE OF INVENTION: CYCLASE INHIBITING PARATHYROID HORMONE
FILE REFERENCE: 53221-20002.00
CURRENT APPLICATION NUMBER: US/09/928,047B
PRIOR FILING DATE: 2001-08-10
PRIOR APPLICATION NUMBER: US 60/224,446
PRIOR FILING DATE: 2000-08-10
NUMBER OF SEQ ID NOS: 8
SOFTWARE: FastSeq for Windows Version 4.0
SEQ ID NO 6
LENGTH: 34
TYPE: PRT
ORGANISM: Homo sapiens
US-09-928-047B-6

Query Match 87.6%; Score 144.5; DB 3; Length 34;
Best Local Similarity 85.3%; Pred. No. 1e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSXERVWLKKLQDVHNY 33
Db 1 SVSEIQLMHNLGKHLNSMERVWLKKLQDVHNF 34

RESULT 12
US-09-843-221A-16
Sequence 16, Application US/09843221A
Publication No. US20030039654A1
GENERAL INFORMATION:

```
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 16
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-843-221A-16
```

```
Query Match 87.6%; Score 144.5; DB 3; Length 34;
Best Local Similarity 85.3%; Pred. No. 1e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;
```

```
QY 1 SVSEIQ-XHNKGKHLNSXERVEWLRKKLQDVHNY 33
||||| ||||||| ||||||| ||||||| |||||||
DB 1 SVSEIQLMHNLGKHLNSMERVEWLRKKLQDVHNF 34
```

```
RESULT 13
US-09-843-221A-17
; Sequence 17, Application US/09843221A
; Publication No. US20030039654A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 17
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTH
US-09-843-221A-17
```

```
Query Match 87.6%; Score 144.5; DB 3; Length 34;
Best Local Similarity 85.3%; Pred. No. 1e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;
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```
QY 1 SVSEIQ-XHNKGKHLNSXERVEWLRKKLQDVHNY 33
||||| ||||||| ||||||| ||||||| |||||||
DB 1 SVSEIQLMHNRGKHLNSMERVEWLRKKLQDVHNF 34
```

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RESULT 14
US-09-843-221A-18
; Sequence 18, Application US/09843221A
; Publication No. US20030039654A1
```

```
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID ;
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID ;
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 18
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTH
US-09-843-221A-18
```

```
Query Match 87.6%; Score 144.5; DB 3; Length 34;
Best Local Similarity 85.3%; Pred. No. 1e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;
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```
QY 1 SVSEIQ-XHNKGKHLNSXERVEWLRKKLQDVHNY 33
||||| ||||||| ||||||| ||||||| |||||||
DB 1 SVSEIQLMHNKGKHLNSMERVEWLRKKLQDVHNF 34
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```
RESULT 15
US-09-843-221A-161
; Sequence 161, Application US/09843221A
; Publication No. US20030039654A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID I
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID I
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 161
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Preferred embodiments - PTH
; NAME/KEY: misc feature
; LOCATION: (34)...(34)
; OTHER INFORMATION: Optional linker and Pc domain attached at the C-terminus
US-09-843-221A-161
```

```
Query Match 87.6%; Score 144.5; DB 3; Length 34;
Best Local Similarity 85.3%; Pred. No. 1e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;
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```
QY 1 SVSEIQ-XHNKGKHLNSXERVEWLRKKLQDVHNY 33
||||| ||||||| ||||||| ||||||| |||||||
DB 1 SVSEIQLMHNLGKHLNSMERVEWLRKKLQDVHNF 34
```

RESULT 16
US-09-843-221A-162
; Sequence 162, Application US/09843221A
; Publication No. US20030039654A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: RELATED PROTEIN
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR FILING DATE: 2001-04-26
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 162
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Preferred embodiments - PTH
; NAME/KEY: misc feature
; LOCATION: (34)..(34)
; OTHER INFORMATION: Optional linker and Pc domain attached at the C-terminus
US-09-843-221A-162

Query Match 87.6%; Score 144.5; DB 3; Length 34;
Best Local Similarity 85.3%; Pred. No. 1e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;
QY 1 SVSEIQ-XHNKXGHLNSXERVWLKKLQDVHNY 33
Db 1 SVSEIQLMHNRGHLNSMERVWLKKLQDVHNF 34

RESULT 17
US-09-843-221A-163
; Sequence 163, Application US/09843221A
; Publication No. US20030039654A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: RELATED PROTEIN
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 163
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Preferred embodiments - PTH
; NAME/KEY: misc feature
; LOCATION: (34)..(34)
; OTHER INFORMATION: Optional linker and Pc domain attached at the C-terminus

US-09-843-221A-163
Query Match 87.6%; Score 144.5; DB 3; Length 34;
Best Local Similarity 85.3%; Pred. No. 1e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;
QY 1 SVSEIQ-XHNKXGHLNSXERVWLKKLQDVHNY 33
Db 1 SVSEIQLMHNRGHLNSMERVWLKKLQDVHNF 34
RESULT 18
US-09-928-048A-6
; Sequence 6, Application US/09928048A
; Publication No. US20030138858A1
; GENERAL INFORMATION:
; APPLICANT: Scantibodies Laboratory, Inc.
; APPLICANT: Cantor, Thomas L.
; TITLE OF INVENTION: METHODS AND DEVICES FOR DIRECT
; TITLE OF INVENTION: DETERMINATION OF CYCLASE INHIBITING PARATHYROID HORMONE
; FILE REFERENCE: 53221-20015.00
; CURRENT APPLICATION NUMBER: US/09/928,048A
; CURRENT FILING DATE: 2000-08-10
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 6
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-928-048A-6
Query Match 87.6%; Score 144.5; DB 3; Length 34;
Best Local Similarity 85.3%; Pred. No. 1e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;
QY 1 SVSEIQ-XHNKXGHLNSXERVWLKKLQDVHNY 33
Db 1 SVSEIQLMHNRGHLNSMERVWLKKLQDVHNF 34

RESULT 19
US-09-999-608-16
; Sequence 16, Application US/09999608
; Publication No. US20050124537A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: GEGG, COLIN V.
; APPLICANT: JAROSINSKI, MARK ANTHONY
; APPLICANT: KINSTLER, OLAF BORIS
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID
; TITLE OF INVENTION: HORMONE-RELATED PROTEIN
; FILE REFERENCE: A-665C
; CURRENT APPLICATION NUMBER: US/09/999,608
; CURRENT FILING DATE: 2002-03-11
; PRIOR FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: US 09/843,221
; PRIOR FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: US 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: US 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: US 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 193
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 16
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-999-608-16

Query Match 87.6%; Score 144.5; DB 3; Length 34;
Best Local Similarity 85.3%; Pred. No. 1e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;


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; CURRENT FILING DATE: 2002-03-11
; PRIOR APPLICATION NUMBER: US 09/843,221
; PRIOR FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: US 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: US 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: US 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 193
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 162
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Preferred embodiments - PTH
; FEATURE:
; NAME/KEY: misc feature
; LOCATION: (34)..(34)
; OTHER INFORMATION: Optional linker and Fc domain attached at the C-terminus
US-09-999-608-162
Query Match 87.6%; Score 144.5; DB 3; Length 34;
Best Local Similarity 85.3%; Pred. No. 1e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;
QY 1 SVSEIQ-XHNXGKHLNSXERVEWLKKLQDVHNF 33
Db 1 SVSEIQLMHNKGLHNSMVERVWLKKLQDVHNF 34
RESULT 24
US-09-999-608-163
; Sequence 163, Application US/09999608
; Publication No. US20050124537A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUK, PAUL
; APPLICANT: GEGG, COLIN V.
; APPLICANT: JAROSINSKI, MARK ANTHONY
; APPLICANT: KINSTLER, OLAF BORIS
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID
; TITLE OF INVENTION: HORMONE-RELATED PROTEIN
; FILE REFERENCE: A-665C
; CURRENT APPLICATION NUMBER: US/09/999,608
; CURRENT FILING DATE: 2002-03-11
; PRIOR APPLICATION NUMBER: US 09/843,221
; PRIOR FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: US 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: US 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: US 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 193
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 163
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Preferred embodiments - PTH
; FEATURE:
; NAME/KEY: misc feature
; LOCATION: (34)..(34)
; OTHER INFORMATION: Optional linker and Fc domain attached at the C-terminus
US-09-999-608-163
Query Match 87.6%; Score 144.5; DB 3; Length 34;
Best Local Similarity 85.3%; Pred. No. 1e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;
QY 1 SVSEIQ-XHNXGKHLNSXERVEWLKKLQDVHNF 33
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Db 1 SVSEIQLMHNKGLHNSMVERVWLKKLQDVHNF 34
RESULT 25
US-10-016-403-5
; Sequence 5, Application US/10016403
; Publication No. US20020107505A1
; GENERAL INFORMATION:
; APPLICANT: Holladay, Leslie A.
; TITLE OF INVENTION: MODIFICATION OF POLYPEPTIDE DRUGS TO
; INCREASE ELECTROTRANSPORT FLUX
; NUMBER OF SEQUENCES: 10
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Stroud, Stroud, Willink, Thompson & Howard
; STREET: 25 West Main Street
; CITY: Madison
; STATE: WI
; COUNTRY: USA
; ZIP: 53701-2236
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/016,403
; FILING DATE: 10-Dec-2001
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/466,610
; FILING DATE: 1995-JUN-06
; ATTORNEY/AGENT INFORMATION:
; NAME: Frenchick, Grady J.
; REGISTRATION NUMBER: 29,018
; REFERENCE/DOCKET NUMBER: 8734.28
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 608-257-2281
; TELEFAX: 608-257-7643
; INFORMATION FOR SEQ ID NO: 5:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 34 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; FEATURE:
; NAME/KEY: Peptide
; LOCATION: 1..34
; OTHER INFORMATION: /note= "parathyroid hormone"
; SEQUENCE DESCRIPTION: SEQ ID NO: 5:
US-10-016-403-5
Query Match 87.6%; Score 144.5; DB 4; Length 34;
Best Local Similarity 85.3%; Pred. No. 1e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;
QY 1 SVSEIQ-XHNXGKHLNSXERVEWLKKLQDVHNF 33
Db 1 SVSEIQLMHNKGLHNSMVERVWLKKLQDVHNF 34
RESULT 26
US-10-097-079-1
; Sequence 1, Application US/10097079
; Publication No. US20020132973A1
; GENERAL INFORMATION:
; APPLICANT: Condon, Stephen M.
; Morize, Isabelle
; TITLE OF INVENTION: PEPTIDE PARATHYROID HORMONE ANALOGS
; NUMBER OF SEQUENCES: 88
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Rhone-Poulenc Rorer Inc.
; STREET: 500 Arcola Road, Mailstop 3C43
; CITY: Collegeville
```

STATE: PA
COUNTRY: USA
ZIP: 19426
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/097,079
FILING DATE: 13-Mar-2002
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/228,990
FILING DATE: <Unknown>
APPLICATION NUMBER: US 60/046,472
FILING DATE: 14-MAY-1997
ATTORNEY/AGENT INFORMATION:
NAME: Martin Esq., Michael B.
REGISTRATION NUMBER: 37,521
REFERENCE/DOCKET NUMBER: A2678B-WO
TELECOMMUNICATION INFORMATION:
TELEPHONE: (610) 454-2793
TELEFAX: (610) 454-3808
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 34 amino acids
TYPE: amino acid
STRANDEDNESS: <Unknown>
TOPOLOGY: No. US20020132973A1 Relevant
MOLECULE TYPE: peptide
FRAGMENT TYPE: N-terminal
SEQUENCE DESCRIPTION: SEQ ID NO: 1:
US-10-097-079-1

Query Match 87.6%; Score 144.5; DB 4; Length 34;
Best Local Similarity 85.3%; Pred. No. 1e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGHLNSXERVELRKKLQDVHNY 33
DB 1 SVSEIQLMNLGKHLNSMERVELRKKLQDVHNF 34

RESULT 27

US-10-361-928-8
Sequence 8, Application US/10361928
Publication No. US20030144209A1
GENERAL INFORMATION:
APPLICANT: BRINGHURST, F. RICHARD
APPLICANT: TAKASU, HISASHI
APPLICANT: GARDELLA, THOMAS J.
TITLE OF INVENTION: AMINO-TERMINAL MODIFIED PARATHYROID HORMONE (PTH)
TITLE OF INVENTION: ANALOGS
FILE REFERENCE: 0609.463002
CURRENT APPLICATION NUMBER: US/10/361,928
CURRENT FILING DATE: 2003-02-11
PRIOR APPLICATION NUMBER: 09/447,800
PRIOR FILING DATE: 1999-11-23
PRIOR APPLICATION NUMBER: 60/110,152
PRIOR FILING DATE: 1998-11-25
NUMBER OF SEQ ID NOS: 10
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 8
LENGTH: 34
TYPE: PRT
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: MOD RES
LOCATION: (1)_
OTHER INFORMATION: Desamino Ser
US-10-361-928-8

Query Match 87.6%; Score 144.5; DB 4; Length 34;
Best Local Similarity 85.3%; Pred. No. 1e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGHLNSXERVELRKKLQDVHNY 33
DB 1 SVSEIQLMNLGKHLNSMERVELRKKLQDVHNF 34

RESULT 28

US-10-340-484-15
Sequence 15, Application US/10340484
Publication No. US20030171288A1
GENERAL INFORMATION:
APPLICANT: Stewart, Andrew F.
TITLE OF INVENTION: Treatment of Bone Disorders with Skeletal Anabolic
TITLE OF INVENTION: Drugs
FILE REFERENCE: 25200-501
CURRENT APPLICATION NUMBER: US/10/340,484
CURRENT FILING DATE: 2003-01-10
PRIOR APPLICATION NUMBER: 60/347,215
PRIOR FILING DATE: 2002-01-10
PRIOR APPLICATION NUMBER: 60/353,296
PRIOR FILING DATE: 2002-02-01
PRIOR APPLICATION NUMBER: 60/368,955
PRIOR FILING DATE: 2002-03-28
PRIOR APPLICATION NUMBER: 60/379,125
PRIOR FILING DATE: 2002-05-08
NUMBER OF SEQ ID NOS: 27
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 15
LENGTH: 34
TYPE: PRT
ORGANISM: Homo sapiens
US-10-340-484-15

Query Match 87.6%; Score 144.5; DB 4; Length 34;
Best Local Similarity 85.3%; Pred. No. 1e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGHLNSXERVELRKKLQDVHNY 33
DB 1 SVSEIQLMNLGKHLNSMERVELRKKLQDVHNF 34

RESULT 29

US-10-340-484-16
Sequence 16, Application US/10340484
Publication No. US20030171288A1
GENERAL INFORMATION:
APPLICANT: Stewart, Andrew F.
TITLE OF INVENTION: Treatment of Bone Disorders with Skeletal Anabolic
TITLE OF INVENTION: Drugs
FILE REFERENCE: 25200-501
CURRENT APPLICATION NUMBER: US/10/340,484
CURRENT FILING DATE: 2003-01-10
PRIOR APPLICATION NUMBER: 60/347,215
PRIOR FILING DATE: 2002-01-10
PRIOR APPLICATION NUMBER: 60/353,296
PRIOR FILING DATE: 2002-02-01
PRIOR APPLICATION NUMBER: 60/368,955
PRIOR FILING DATE: 2002-03-28
PRIOR APPLICATION NUMBER: 60/379,125
NUMBER OF SEQ ID NOS: 27
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 16
LENGTH: 34
TYPE: PRT
ORGANISM: Macaca fascicularis
US-10-340-484-16

Query Match 87.6%; Score 144.5; DB 4; Length 34;

Best Local Similarity 85.3%; Pred. No. 1e-12; DB 4; Length 34;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSXERVWLRKKLQDVHNY 33
Db 1 SVSEIQLMHNLGKHLNSMERVWLRKKLQDVHNF 34

RESULT 30

US-10-340-484-17
; Sequence 17, Application US/10340484
; Publication No. US20030171288A1
; GENERAL INFORMATION:
; APPLICANT: Stewart, Andrew F.
; TITLE OF INVENTION: Treatment of Bone Disorders with Skeletal Anabolic
; TITLE OF INVENTION: Drugs
; FILE REFERENCE: 25200-501
; CURRENT APPLICATION NUMBER: US/10/340,484
; CURRENT FILING DATE: 2003-01-10
; PRIOR APPLICATION NUMBER: 60/347,215
; PRIOR FILING DATE: 2002-01-10
; PRIOR APPLICATION NUMBER: 60/353,296
; PRIOR FILING DATE: 2002-02-01
; PRIOR APPLICATION NUMBER: 60/368,955
; PRIOR FILING DATE: 2002-03-28
; PRIOR APPLICATION NUMBER: 60/379,125
; PRIOR FILING DATE: 2002-05-08
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 17
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Equus caballus
US-10-340-484-17

Query Match 87.6%; Score 144.5; DB 4; Length 34;
Best Local Similarity 85.3%; Pred. No. 1e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSXERVWLRKKLQDVHNY 33
Db 1 SVSEIQLMHNLGKHLNSMERVWLRKKLQDVHNF 34

RESULT 31

US-10-427-259-2
; Sequence 2, Application US/10427259
; Publication No. US20030225000A1
; GENERAL INFORMATION:
; APPLICANT: Chang, Chin-Ming
; APPLICANT: Havel, Henry
; TITLE OF INVENTION: Stabilized Teriparatide Solutions
; FILE REFERENCE: X-10911B
; CURRENT APPLICATION NUMBER: US/10/427,259
; CURRENT FILING DATE: 2003-04-30
; NUMBER OF SEQ ID NOS: 2
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
; LENGTH: 34
; TYPE: PRT
; ORGANISM: homo sapiens
US-10-427-259-2

Query Match 87.6%; Score 144.5; DB 4; Length 34;
Best Local Similarity 85.3%; Pred. No. 1e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSXERVWLRKKLQDVHNY 33
Db 1 SVSEIQLMHNLGKHLNSMERVWLRKKLQDVHNF 34

RESULT 32

US-10-398-449-14
; Sequence 14, Application US/10398449
; Publication No. US20040013719A1
; GENERAL INFORMATION:
; APPLICANT: Hollick, Michael F.
; TITLE OF INVENTION: Regulation of Cell Proliferation And Differentiation
; TITLE OF INVENTION: Using Topically Applied Nucleic Acid Molecules
; FILE REFERENCE: 1539.0320001
; CURRENT APPLICATION NUMBER: US/10/398,449
; CURRENT FILING DATE: 2003-04-04
; PRIOR APPLICATION NUMBER: PCT/US01/31082
; PRIOR FILING DATE: 2001-05-10
; PRIOR APPLICATION NUMBER: US 60/238,134
; PRIOR FILING DATE: 2000-10-06
; NUMBER OF SEQ ID NOS: 44
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 14
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: hPTH (1-34)
US-10-398-449-14

Query Match 87.6%; Score 144.5; DB 4; Length 34;
Best Local Similarity 85.3%; Pred. No. 1e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSXERVWLRKKLQDVHNY 33
Db 1 SVSEIQLMHNLGKHLNSMERVWLRKKLQDVHNF 34

RESULT 33

US-10-398-449-18
; Sequence 18, Application US/10398449
; Publication No. US20040013719A1
; GENERAL INFORMATION:
; APPLICANT: Hollick, Michael F.
; TITLE OF INVENTION: Regulation of Cell Proliferation And Differentiation
; TITLE OF INVENTION: Using Topically Applied Nucleic Acid Molecules
; FILE REFERENCE: 1539.0320001
; CURRENT APPLICATION NUMBER: US/10/398,449
; CURRENT FILING DATE: 2003-04-04
; PRIOR APPLICATION NUMBER: PCT/US01/31082
; PRIOR FILING DATE: 2001-05-10
; PRIOR APPLICATION NUMBER: US 60/238,134
; PRIOR FILING DATE: 2000-10-06
; NUMBER OF SEQ ID NOS: 44
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 18
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: hPTH (1-34)
US-10-398-449-18

Query Match 87.6%; Score 144.5; DB 4; Length 34;
Best Local Similarity 85.3%; Pred. No. 1e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSXERVWLRKKLQDVHNY 33
Db 1 SVSEIQLMHNLGKHLNSMERVWLRKKLQDVHNF 34

RESULT 34

US-10-311-366-13
; Sequence 13, Application US/10311366
; Publication No. US20040022838A1
; GENERAL INFORMATION:
; APPLICANT: Hollick, Michael F.

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; TITLE OF INVENTION: Regulation of Cell Proliferation And Differentiation Using Topical
; FILE OF INVENTION: Applied Peptides
; FILE REFERENCE: 1539.0310001
; CURRENT APPLICATION NUMBER: US/10/311,366
; CURRENT FILING DATE: 2002-12-16
; PRIOR APPLICATION NUMBER: PCT/US01/19650
; PRIOR FILING DATE: 2001-06-20
; PRIOR APPLICATION NUMBER: US 60/213,247
; PRIOR FILING DATE: 2000-06-22
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 13
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: misc feature
; OTHER INFORMATION: hPTH (1-34)
US-10-311-366-13

Query Match      87.6%; Score 144.5; DB 4; Length 34;
Best Local Similarity 85.3%; Pred. No. 1e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKXGKHLNSXRVWLRLKKLQDVHNY 33
Db 1 SVSEIQLMHNLGKHLNSMERVWLRLKKLQDVHNF 34

RESULT 35
US-10-440-473-1
; Sequence 1, Application US/10440473
; Publication No. US20040023882A1
; GENERAL INFORMATION:
; APPLICANT: PERI, KRISHNA G.
; APPLICANT: HIGH, KIM
; APPLICANT: BERGERON, ANNIE
; APPLICANT: MOFFETT, SERGE
; APPLICANT: ABRIBAT, THIERRY
; TITLE OF INVENTION: PTH DERIVATIVES RESISTANT TO SKIN PROTEASES
; FILE REFERENCE: GOURD:029US
; CURRENT APPLICATION NUMBER: US/10/440,473
; CURRENT FILING DATE: 2003-05-16
; PRIOR APPLICATION NUMBER: 60/378,072
; PRIOR FILING DATE: 2002-05-16
; NUMBER OF SEQ ID NOS: 2
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 1
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
US-10-440-473-1

Query Match      87.6%; Score 144.5; DB 4; Length 34;
Best Local Similarity 85.3%; Pred. No. 1e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKXGKHLNSXRVWLRLKKLQDVHNY 33
Db 1 SVSEIQLMHNLGKHLNSMERVWLRLKKLQDVHNF 34

RESULT 36
US-10-443-693-2
; Sequence 2, Application US/10443693
; Publication No. US20040033950A1
; GENERAL INFORMATION:
; APPLICANT: Hock, Janet
; APPLICANT: Gaich, Gregory
; APPLICANT: Dere, Willard
```

```
; TITLE OF INVENTION: Method of Increasing Bone Toughness and Stiffness and Reducing F
; FILE REFERENCE: X-11965A
; CURRENT APPLICATION NUMBER: US/10/443,693
; CURRENT FILING DATE: 2003-05-22
; NUMBER OF SEQ ID NOS: 2
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
; LENGTH: 34
; TYPE: PRT
; ORGANISM: homo sapiens
; FEATURE:
; NAME/KEY: MISC_FEATURE
; LOCATION: (1)..(34)
; OTHER INFORMATION:
US-10-443-693-2

Query Match      87.6%; Score 144.5; DB 4; Length 34;
Best Local Similarity 85.3%; Pred. No. 1e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKXGKHLNSXRVWLRLKKLQDVHNY 33
Db 1 SVSEIQLMHNLGKHLNSMERVWLRLKKLQDVHNF 34

RESULT 37
US-10-343-189-16
; Sequence 16, Application US/10343189
; Publication No. US20040214271A1
; GENERAL INFORMATION:
; APPLICANT: ITO, Takashi
; APPLICANT: KOBAYASHI, Masayuki
; APPLICANT: SAWADA, Hidekazu
; TITLE OF INVENTION: Method of Culture for Recombinant Escherichia coli.
; FILE REFERENCE: 2765 USOP
; CURRENT APPLICATION NUMBER: US/10/343,189
; CURRENT FILING DATE: 2003-01-27
; PRIOR APPLICATION NUMBER: PCT/JP01/06531
; PRIOR FILING DATE: 2001-07-30
; PRIOR APPLICATION NUMBER: JP 2000-232389
; PRIOR FILING DATE: 2000-07-31
; NUMBER OF SEQ ID NOS: 18
; SEQ ID NO 16
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Human
US-10-343-189-16

Query Match      87.6%; Score 144.5; DB 4; Length 34;
Best Local Similarity 85.3%; Pred. No. 1e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKXGKHLNSXRVWLRLKKLQDVHNY 33
Db 1 SVSEIQLMHNLGKHLNSMERVWLRLKKLQDVHNF 34

RESULT 38
US-10-839-037-16
; Sequence 16, Application US/10839037
; Publication No. US20040214996A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID
; TITLE OF INVENTION: RELATED PROTEIN
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/10/839,037
; CURRENT FILING DATE: 2004-05-04
; PRIOR APPLICATION NUMBER: US/09/843,221A
; PRIOR FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
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; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 16
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-839-037-16

Query Match      87.6%; Score 144.5; DB 4; Length 34;
Best Local Similarity 85.3%; Pred. No. 1e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSKXERVEWLRKKLQDVHNY 33
Db 1 SVSEIQLMHNGLGKHLNSMERVEWLRKKLQDVHNF 34

RESULT 39
US-10-839-037-17
; Sequence 17, Application US/10839037
; Publication No. US20040214996A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/10/839,037
; CURRENT FILING DATE: 2004-05-04
; PRIOR APPLICATION NUMBER: US/09/843,221A
; PRIOR FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 17
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTH
US-10-839-037-17

Query Match      87.6%; Score 144.5; DB 4; Length 34;
Best Local Similarity 85.3%; Pred. No. 1e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSKXERVEWLRKKLQDVHNY 33
Db 1 SVSEIQLMHNGLGKHLNSMERVEWLRKKLQDVHNF 34

RESULT 40
US-10-839-037-18
; Sequence 18, Application US/10839037
; Publication No. US20040214996A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; FILE REFERENCE: A-665B
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; CURRENT APPLICATION NUMBER: US/10/839,037
; CURRENT FILING DATE: 2004-05-04
; PRIOR APPLICATION NUMBER: US/09/843,221A
; PRIOR FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 18
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTH
US-10-839-037-18
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Query Match      87.6%; Score 144.5; DB 4; Length 34;
Best Local Similarity 85.3%; Pred. No. 1e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSKXERVEWLRKKLQDVHNY 33
Db 1 SVSEIQLMHNGLGKHLNSMERVEWLRKKLQDVHNF 34
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Search completed: January 28, 2006, 01:28:27
Job time : 64 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: January 28, 2006, 01:26:16 ; Search time 8 Seconds
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Title: US-09-674-597A-16

Perfect score: 165

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Gapop 10.0 , Gapext 0.5

Searched: 75621 seqs, 10829074 residues

Total number of hits satisfying chosen parameters: 75621

Minimum DB seq length: 0

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Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 100 summaries

Database : Published Applications_AA_New.*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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2	148.5	90.0	34	7	US-11-035-826-192
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4	144.5	87.6	34	7	US-11-126-996-2
5	144.5	87.6	34	7	US-11-035-826-18
6	144.5	87.6	34	7	US-11-035-826-33
7	144.5	87.6	34	7	US-11-035-826-34
8	144.5	87.6	34	7	US-11-035-826-36
9	144.5	87.6	34	7	US-11-035-826-67
10	144.5	87.6	34	7	US-11-035-826-78
11	144.5	87.6	34	7	US-11-035-826-97
12	144.5	87.6	34	7	US-11-035-826-98
13	144.5	87.6	34	7	US-11-035-826-186
14	144.5	87.6	34	7	US-11-035-826-189
15	144.5	87.6	34	7	US-11-035-826-198
16	144.5	87.6	36	7	US-11-035-826-20
17	144.5	87.6	37	7	US-11-035-826-19
18	144.5	87.6	84	7	US-11-126-996-1
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96	127.5	77.3	31	7	US-11-126-996-3
97	127.5	77.3	31	7	US-11-035-826-21
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Sequence 260, App
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Sequence 77, Appl
Sequence 82, Appl
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Sequence 183, App
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Sequence 103, App
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Sequence 73, Appl
Sequence 81, Appl
Sequence 89, Appl
Sequence 102, App
Sequence 64, Appl
Sequence 188, App
Sequence 190, App
Sequence 200, App
Sequence 272, App
Sequence 24, Appl
Sequence 54, Appl
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Sequence 62, Appl
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Sequence 70, Appl
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Sequence 44, Appl
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Sequence 184, App
Sequence 196, App
Sequence 38, Appl
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Sequence 68, Appl
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Sequence 194, App
Sequence 274, App
Sequence 31, Appl
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Sequence 18, Appl
Sequence 26, Appl

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ALIGNMENTS

RESULT 1
US-11-035-826-37
; Sequence 37, Application US/11035826
; Publication No. US20050282749A1
; GENERAL INFORMATION:
; APPLICANT: HENRIKSEN, DENNIS BANG
; TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
; TITLE OF INVENTION: PREVENTION, DIAGNOSIS, AND PROGNOSIS OF BONE-RELATED
; TITLE OF INVENTION: DISORDERS AND CALCIUM HOMEOSTASIS RELATED SYNDROMES
; FILE REFERENCE: 57736 CIP2(46865)
; CURRENT APPLICATION NUMBER: US/11/035,826
; CURRENT FILING DATE: 2005-01-14
; PRIOR APPLICATION NUMBER: 10/393,524
; PRIOR FILING DATE: 2003-03-20
; PRIOR APPLICATION NUMBER: 09/954,304
; PRIOR FILING DATE: 2001-09-17
; PRIOR APPLICATION NUMBER: GB 0022844.5
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: GB 0029920.6
; PRIOR FILING DATE: 2000-12-07
; PRIOR APPLICATION NUMBER: 60/371,307
; PRIOR FILING DATE: 2002-04-10
; NUMBER OF SEQ ID NOS: 279
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 37
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
; NAME/KEY: MOD_RES
; LOCATION: (7)..(7)
; OTHER INFORMATION: Cha
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (8)..(8)
; OTHER INFORMATION: Nle
; NAME/KEY: MOD_RES
; LOCATION: (11)..(11)
; OTHER INFORMATION: Cha
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (18)..(18)
; OTHER INFORMATION: Nle
US-11-035-826-37

Query Match 90.0%; Score 148.5; DB 7; Length 34;
Best Local Similarity 97.1%; Pred. No. 1.7e-15;
Matches 33; Conservative 0; Mismatches 0; Indels 1; Gaps 1;
Oy 1 SVSEIQ-XHNKXGKHLNSXERVWLKRLQDVHNY 33
Db 1 SVSEIQXHNKXGKHLNSXERVWLKRLQDVHNY 34

RESULT 2
US-11-035-826-192
; Sequence 192, Application US/11035826
; Publication No. US20050282749A1
; GENERAL INFORMATION:
; APPLICANT: HENRIKSEN, DENNIS BANG
; TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
; TITLE OF INVENTION: PREVENTION, DIAGNOSIS, AND PROGNOSIS OF BONE-RELATED
; TITLE OF INVENTION: DISORDERS AND CALCIUM HOMEOSTASIS RELATED SYNDROMES
; FILE REFERENCE: 57736 CIP2(46865)
; CURRENT APPLICATION NUMBER: US/11/035,826
; CURRENT FILING DATE: 2005-01-14
; PRIOR APPLICATION NUMBER: 10/393,524
; PRIOR FILING DATE: 2003-03-20
; PRIOR APPLICATION NUMBER: 09/954,304
; PRIOR FILING DATE: 2001-09-17
; PRIOR APPLICATION NUMBER: GB 0022844.5
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: GB 0029920.6
; PRIOR FILING DATE: 2000-12-07
; PRIOR APPLICATION NUMBER: 60/371,307
; PRIOR FILING DATE: 2002-04-10
; NUMBER OF SEQ ID NOS: 279
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 37
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
; NAME/KEY: MOD_RES
; LOCATION: (7)..(7)
; OTHER INFORMATION: Cha
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (8)..(8)
; OTHER INFORMATION: Nle
; NAME/KEY: MOD_RES
; LOCATION: (11)..(11)
; OTHER INFORMATION: Cha
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (18)..(18)
; OTHER INFORMATION: Nle
US-11-035-826-37

Query Match 90.0%; Score 148.5; DB 7; Length 34;
Best Local Similarity 97.1%; Pred. No. 1.7e-15;
Matches 33; Conservative 0; Mismatches 0; Indels 1; Gaps 1;
Oy 1 SVSEIQ-XHNKXGKHLNSXERVWLKRLQDVHNY 33
Db 1 SVSEIQXHNKXGKHLNSXERVWLKRLQDVHNY 34

RESULT 3
US-11-176-735-19
; Sequence 19, Application US/11176735
; Publication No. US20050272660A1
; GENERAL INFORMATION:
; APPLICANT: Gardella, T.J.
; APPLICANT: Kronenberg, H.M.
; APPLICANT: Potts, J.T.
; APPLICANT: Juppner, H.
; TITLE OF INVENTION: Polypeptide Derivatives of Parathyroid Hormone (PTH)
; FILE REFERENCE: 0609.4820002
; CURRENT APPLICATION NUMBER: US/11/176,735
; CURRENT FILING DATE: 2005-07-08
; PRIOR APPLICATION NUMBER: US/09/672,020
; PRIOR FILING DATE: 2000-09-29
; PRIOR APPLICATION NUMBER: US 60/185,060
; PRIOR FILING DATE: 2000-02-25
; PRIOR APPLICATION NUMBER: PCT/US00/04716
; PRIOR FILING DATE: 2000-02-25
; PRIOR APPLICATION NUMBER: US 60/156,927
; PRIOR FILING DATE: 1999-09-29
; NUMBER OF SEQ ID NOS: 31
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 19
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-176-735-19

Query Match 87.6%; Score 144.5; DB 7; Length 34;
Best Local Similarity 85.3%; Pred. No. 6.3e-15;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

Qy	1 SVSEIQ-XHNXGHLNSXERVEWLRKQLQDVHNY 33
Db	1 SVSEIQLMHNLGHLNSMERVEWLRKQLQDVHNF 34

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RESULT 4
US-11-126-996-2
; Sequence 2, Application US/11126996
; Publication No. US20050276843A1
; GENERAL INFORMATION:
; APPLICANT: Quay, Steven C.
; APPLICANT: Costantino, Henry R.
; APPLICANT: Kleppe, Mary S.
; APPLICANT: Li, Ching-Yuan
; TITLE OF INVENTION: Compositions and Methods for Enhanced
; TITLE OF INVENTION: Mucosal Delivery of Parathyroid Hormone
; FILE REFERENCE: 04-04US
; CURRENT APPLICATION NUMBER: US/11/126,996
; CURRENT FILING DATE: 2005-05-11
; PRIOR APPLICATION NUMBER: US 60/570,113
; PRIOR FILING DATE: 2004-05-10
; NUMBER OF SEQ ID NOS: 3
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-126-996-2

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RESULT 5
 US-11-035-826-18
 ; Sequence 18, Application US/11035826
 ; Publication No. US20050282749A1
 ; GENERAL INFORMATION:
 ; APPLICANT: HENRIKSEN, DENNIS BANG
 ; APPLICANT: HOLST, JENS JUUL
 ; TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
 ; TITLE OF INVENTION: PREVENTION, DIAGNOSIS, AND PROGNOSIS OF BONE-RELATED
 ; TITLE OF INVENTION: DISORDERS AND CALCIUM HOMEOSTASIS RELATED SYNDROMES
 ; FILE REFERENCE: 57736 CIP2(46865)
 ; CURRENT APPLICATION NUMBER: US/11/035,826
 ; CURRENT FILING DATE: 2005-01-14
 ; PRIOR APPLICATION NUMBER: 10/393,524
 ; PRIOR FILING DATE: 2003-03-20
 ; PRIOR APPLICATION NUMBER: 09/954,304
 ; PRIOR FILING DATE: 2001-09-17
 ; PRIOR APPLICATION NUMBER: GB 0022844.5
 ; PRIOR FILING DATE: 2000-09-18
 ; PRIOR APPLICATION NUMBER: GB 0029920.6
 ; PRIOR FILING DATE: 2000-12-07
 ; PRIOR APPLICATION NUMBER: 60/371,307
 ; PRIOR FILING DATE: 2002-04-10
 ; NUMBER OF SEQ ID NOS: 279
 ; SOFTWARE: PatentIn version 3.3
 ; SEQ ID NO 18
 ; LENGTH: 34
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-11-035-826-18

Qy	1 SVSEIQ-XHNXGKHLNSXERVEWLRKKLQDVHNY 33 : :
Db	1 SVSEIQLMHNLGKLNSMERVEWLRKKLQDVHNF 34 :

RESULT 6
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 ; Sequence 33, Application US/11035826
 ; Publication No. US20050282749A1
 ; GENERAL INFORMATION:
 ; APPLICANT: HENRIKSEN, DENNIS BANG
 ; APPLICANT: HOLST, JENS JUUL
 ; TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
 ; TITLE OF INVENTION: PREVENTION, DIAGNOSIS, AND PROGNOSIS OF BONE-RELATED
 ; TITLE OF INVENTION: DISORDERS AND CALCIUM HOMEOSTASIS RELATED SYNDROMES
 ; FILE REFERENCE: 57736 CIP2(46865)
 ; CURRENT APPLICATION NUMBER: US/11/035,826
 ; CURRENT FILING DATE: 2005-01-14
 ; PRIOR APPLICATION NUMBER: 10/393,524
 ; PRIOR FILING DATE: 2003-03-20
 ; PRIOR APPLICATION NUMBER: 09/954,304
 ; PRIOR FILING DATE: 2001-09-17
 ; PRIOR APPLICATION NUMBER: GB 0022844.5
 ; PRIOR FILING DATE: 2000-09-18
 ; PRIOR APPLICATION NUMBER: GB 0029920.6
 ; PRIOR FILING DATE: 2000-12-07
 ; PRIOR APPLICATION NUMBER: 60/371,307
 ; PRIOR FILING DATE: 2002-04-10
 ; NUMBER OF SEQ ID NOS: 279
 ; SOFTWARE: PatentIn version 3.3
 ; SEQ ID NO 33
 ; LENGTH: 34
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 ; FEATURE:
 ; NAME/KEY: MOD_RES
 ; LOCATION: (7)..(7)
 ; OTHER INFORMATION: Cha
 US-11-035-826-33

RESULT 7
US-11-035-826-34
; Sequence 34, Application US/11035826
; Publication No. US20050282749A1
; GENERAL INFORMATION:
; APPLICANT: HENRIKSEN, DENNIS BANG
; APPLICANT: HOLST, JENS JUUL
; TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
; TITLE OF INVENTION: PREVENTION, DIAGNOSIS, AND PROGNOSIS OF BONE-RELATED
; TITLE OF INVENTION: DISORDERS AND CALCIUM HOMEOSTASIS RELATED SYNDROMES
; FILE REFERENCE: 57736 CIP2(46865)
; CURRENT APPLICATION NUMBER: US/11/035,826
; CURRENT FILING DATE: 2005-01-14
; PRIOR APPLICATION NUMBER: 10/3393,524
; PRIOR FILING DATE: 2003-03-20
; PRIOR APPLICATION NUMBER: 09/954,304
; PRIOR FILING DATE: 2001-09-17
; PRIOR APPLICATION NUMBER: GB 0022844.5
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: GB 0029920.6
; PRIOR FILING DATE: 2000-12-07
; PRIOR APPLICATION NUMBER: 60/371,307
; PRIOR FILING DATE: 2002-04-10
; NUMBER OF SEQ ID NOS: 279

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; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 34
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: MOD RES
; LOCATION: (11)..(11)
; OTHER INFORMATION: Cha
US-11-035-826-34

Query Match      87.6%; Score 144.5; DB 7; Length 34;
Best Local Similarity 88.2%; Pred. No. 6.3e-15;
Matches 30; Conservative 1; Mismatches 2; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSRVERWLRKKLQDVHNY 33
||||| ||||||| ||||||| ||||||| |||||||
Db 1 SVSEIQLMHNXGKHLNSRVERWLRKKLQDVHNF 34

RESULT 8
US-11-035-826-36
; Sequence 36, Application US/11035826
; Publication No. US20050282749A1
; GENERAL INFORMATION:
; APPLICANT: HENRIKSEN, DENNIS BANG
; TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
; TITLE OF INVENTION: PREVENTION, DIAGNOSIS, AND PROGNOSIS OF BONE-RELATED
; FILE REFERENCE: 57736 CIP2(46865)
; CURRENT APPLICATION NUMBER: US/11/035,826
; PRIOR FILING DATE: 2005-01-14
; PRIOR FILING DATE: 2003-03-20
; PRIOR FILING DATE: 2001-09-17
; PRIOR FILING DATE: 2000-09-18
; PRIOR FILING DATE: 2000-12-07
; PRIOR FILING DATE: 2002-04-10
; NUMBER OF SEQ ID NOS: 279
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 36
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
; NAME/KEY: MOD RES
; LOCATION: (7)..(7)
; OTHER INFORMATION: Cha
; FEATURE:
; NAME/KEY: MOD RES
; LOCATION: (11)..(11)
; OTHER INFORMATION: Cha
US-11-035-826-36

Query Match      87.6%; Score 144.5; DB 7; Length 34;
Best Local Similarity 88.2%; Pred. No. 6.3e-15;
Matches 30; Conservative 1; Mismatches 2; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSRVERWLRKKLQDVHNY 33
||||| ||||||| ||||||| ||||||| |||||||
Db 1 SVSEIQLMHNXGKHLNSRVERWLRKKLQDVHNF 34

RESULT 9
US-11-035-826-67
; Sequence 67, Application US/11035826
; Publication No. US20050282749A1
; GENERAL INFORMATION:
; APPLICANT: HENRIKSEN, DENNIS BANG
; TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
; TITLE OF INVENTION: PREVENTION, DIAGNOSIS, AND PROGNOSIS OF BONE-RELATED
; FILE REFERENCE: 57736 CIP2(46865)
; CURRENT APPLICATION NUMBER: US/11/035,826
; PRIOR FILING DATE: 2005-01-14
; PRIOR FILING DATE: 2003-03-20
; PRIOR FILING DATE: 2001-09-17
; PRIOR FILING DATE: 2000-09-18
; PRIOR FILING DATE: 2000-12-07
; PRIOR FILING DATE: 2002-04-10
; NUMBER OF SEQ ID NOS: 279
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 67
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
; NAME/KEY: MOD RES
; LOCATION: (7)..(7)
; OTHER INFORMATION: Cha
; FEATURE:
; NAME/KEY: MOD RES
; LOCATION: (11)..(11)
; OTHER INFORMATION: Cha
US-11-035-826-67

Query Match      87.6%; Score 144.5; DB 7; Length 34;
Best Local Similarity 88.2%; Pred. No. 6.3e-15;
Matches 30; Conservative 1; Mismatches 2; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSRVERWLRKKLQDVHNY 33
||||| ||||||| ||||||| ||||||| |||||||
Db 1 SVSEIQLMHNXGKHLNSRVERWLRKKLQDVHNF 34

RESULT 10
US-11-035-826-78
; Sequence 78, Application US/11035826
; Publication No. US20050282749A1
; GENERAL INFORMATION:
; APPLICANT: HENRIKSEN, DENNIS BANG
; TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
; TITLE OF INVENTION: PREVENTION, DIAGNOSIS, AND PROGNOSIS OF BONE-RELATED
; FILE REFERENCE: 57736 CIP2(46865)
; CURRENT APPLICATION NUMBER: US/11/035,826
; PRIOR FILING DATE: 2005-01-14
; PRIOR FILING DATE: 2003-03-20
; PRIOR FILING DATE: 2001-09-17
; PRIOR FILING DATE: 2000-09-18
; PRIOR FILING DATE: 2000-12-07
; PRIOR FILING DATE: 2002-04-10
; NUMBER OF SEQ ID NOS: 279
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 78

Query Match      87.6%; Score 144.5; DB 7; Length 34;
Best Local Similarity 93.9%; Pred. No. 6.3e-15;
Matches 31; Conservative 0; Mismatches 1; Indels 1; Gaps 1;

QY 2 VSEIQ-XHNKGKHLNSRVERWLRKKLQDVHNY 33
||||| ||||||| ||||||| ||||||| |||||||
Db 2 VSEIQLMHNXGKHLNSRVERWLRKKLQDVHNY 34

RESULT 10
US-11-035-826-78
; Sequence 78, Application US/11035826
; Publication No. US20050282749A1
; GENERAL INFORMATION:
; APPLICANT: HENRIKSEN, DENNIS BANG
; TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
; TITLE OF INVENTION: PREVENTION, DIAGNOSIS, AND PROGNOSIS OF BONE-RELATED
; FILE REFERENCE: 57736 CIP2(46865)
; CURRENT APPLICATION NUMBER: US/11/035,826
; PRIOR FILING DATE: 2005-01-14
; PRIOR FILING DATE: 2003-03-20
; PRIOR FILING DATE: 2001-09-17
; PRIOR FILING DATE: 2000-09-18
; PRIOR FILING DATE: 2000-12-07
; PRIOR FILING DATE: 2002-04-10
; NUMBER OF SEQ ID NOS: 279
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 78
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; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: MOD RES
; LOCATION: (8)..(8)
; OTHER INFORMATION: Cha
US-11-035-826-78

Query Match      87.6%; Score 144.5; DB 7; Length 34;
Best Local Similarity 88.2%; Pred. No. 6.3e-15;
Matches 30; Conservative 1; Mismatches 2; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGKHLNSXRVWLKRLKLDVHNY 33
    ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 1 SVSEIQXHNXGKHLNSMERVWLKRLKLDVHNF 34

RESULT 11
US-11-035-826-97
; Sequence 97, Application US/11035826
; Publication No. US20050282749A1
; GENERAL INFORMATION:
; APPLICANT: HENRIKSEN, DENNIS BANG
; TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
; TITLE OF INVENTION: PREVENTION, DIAGNOSIS, AND PROGNOSIS OF BONE-RELATED,
; TITLE OF INVENTION: DISORDERS AND CALCIUM HOMEOSTASIS RELATED SYNDROMES
; FILE REFERENCE: 57736 CIP2(46865)
; CURRENT APPLICATION NUMBER: US/11/035,826
; CURRENT FILING DATE: 2005-01-14
; PRIOR APPLICATION NUMBER: 10/393,524
; PRIOR FILING DATE: 2003-03-20
; PRIOR APPLICATION NUMBER: 09/954,304
; PRIOR FILING DATE: 2001-09-17
; PRIOR APPLICATION NUMBER: GB 0022844.5
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: GB 0029920.6
; PRIOR FILING DATE: 2000-12-07
; PRIOR APPLICATION NUMBER: 60/371,307
; PRIOR FILING DATE: 2002-04-10
; NUMBER OF SEQ ID NOS: 279
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 97
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-035-826-97

Query Match      87.6%; Score 144.5; DB 7; Length 34;
Best Local Similarity 85.3%; Pred. No. 6.3e-15;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGKHLNSXRVWLKRLKLDVHNY 33
    ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 1 SVSEIQFMENFGKHLNSMERVWLKRLKLDVHNF 34

RESULT 12
US-11-035-826-98
; Sequence 98, Application US/11035826
; Publication No. US20050282749A1
; GENERAL INFORMATION:
; APPLICANT: HENRIKSEN, DENNIS BANG
; TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
; TITLE OF INVENTION: PREVENTION, DIAGNOSIS, AND PROGNOSIS OF BONE-RELATED,
; TITLE OF INVENTION: DISORDERS AND CALCIUM HOMEOSTASIS RELATED SYNDROMES
; FILE REFERENCE: 57736 CIP2(46865)
; CURRENT APPLICATION NUMBER: US/11/035,826
; CURRENT FILING DATE: 2005-01-14
; PRIOR APPLICATION NUMBER: 10/393,524
; PRIOR FILING DATE: 2003-03-20
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; PRIOR APPLICATION NUMBER: 09/954,304
; PRIOR FILING DATE: 2001-09-17
; PRIOR APPLICATION NUMBER: GB 0022844.5
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: GB 0029920.6
; PRIOR FILING DATE: 2000-12-07
; PRIOR APPLICATION NUMBER: 60/371,307
; PRIOR FILING DATE: 2002-04-10
; NUMBER OF SEQ ID NOS: 279
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 98
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: MOD RES
; LOCATION: (7)..(7)
; OTHER INFORMATION: Nal
; FEATURE:
; NAME/KEY: MOD RES
; LOCATION: (11)..(11)
; OTHER INFORMATION: Nal
US-11-035-826-98

Query Match      87.6%; Score 144.5; DB 7; Length 34;
Best Local Similarity 88.2%; Pred. No. 6.3e-15;
Matches 30; Conservative 1; Mismatches 2; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGKHLNSXRVWLKRLKLDVHNY 33
    ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 1 SVSEIQXHNXGKHLNSMERVWLKRLKLDVHNF 34

RESULT 13
US-11-035-826-186
; Sequence 186, Application US/11035826
; Publication No. US20050282749A1
; GENERAL INFORMATION:
; APPLICANT: HENRIKSEN, DENNIS BANG
; APPLICANT: HOLST, JENS JUUL
; TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
; TITLE OF INVENTION: PREVENTION, DIAGNOSIS, AND PROGNOSIS OF BONE-RELATED,
; TITLE OF INVENTION: DISORDERS AND CALCIUM HOMEOSTASIS RELATED SYNDROMES
; FILE REFERENCE: 57736 CIP2(46865)
; CURRENT APPLICATION NUMBER: US/11/035,826
; CURRENT FILING DATE: 2005-01-14
; PRIOR APPLICATION NUMBER: 10/393,524
; PRIOR FILING DATE: 2003-03-20
; PRIOR APPLICATION NUMBER: 09/954,304
; PRIOR FILING DATE: 2001-09-17
; PRIOR APPLICATION NUMBER: GB 0022844.5
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: GB 0029920.6
; PRIOR FILING DATE: 2000-12-07
; PRIOR APPLICATION NUMBER: 60/371,307
; PRIOR FILING DATE: 2002-04-10
; NUMBER OF SEQ ID NOS: 279
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 186
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: MOD RES
; LOCATION: (8)..(8)
; OTHER INFORMATION: Nle
; FEATURE:
; NAME/KEY: MOD RES
; LOCATION: (18)..(18)
; OTHER INFORMATION: Nle
; FEATURE:
; OTHER INFORMATION: Disulphide or amide bond between residues 13 and 17
US-11-035-826-186
```

```
Query Match      87.6%; Score 144.5; DB 7; Length 34;
Best Local Similarity 91.2%; Pred. No. 6.3e-15;
Matches 31; Conservative 0; Mismatches 2; Indels 1; Gaps 1;

Qy 1 SVSEIQ-XHNKGKHLNSXERVWLKRLKLDVHNY 33
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 1 SVSEIQLXHNGLKHLNDSXERVWLKRLKLDVHNY 34

RESULT 14
US-11-035-826-198
; Sequence 189, Application US/11035826
; Publication No. US20050282749A1
; GENERAL INFORMATION:
; APPLICANT: HENRIKSEN, DENNIS BANG
; APPLICANT: HOLST, JENS JUUL
; TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
; TITLE OF INVENTION: PREVENTION, DIAGNOSIS, AND PROGNOSIS OF BONE-RELATED
; TITLE OF INVENTION: DISORDERS AND CALCIUM HOMEOSTASIS RELATED SYNDROMES
; FILE REFERENCE: 57736 CIP2(46865)
; CURRENT APPLICATION NUMBER: US/11/035,826
; CURRENT FILING DATE: 2005-01-14
; PRIOR APPLICATION NUMBER: 10/393,524
; PRIOR FILING DATE: 2003-03-20
; PRIOR APPLICATION NUMBER: 09/954,304
; PRIOR FILING DATE: 2001-09-17
; PRIOR APPLICATION NUMBER: GB 0022844.5
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: GB 0029920.6
; PRIOR FILING DATE: 2000-12-07
; PRIOR FILING DATE: 2002-04-10
; NUMBER OF SEQ ID NOS: 279
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 189
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: Disulphide or amide bond between residues 26 and 30
US-11-035-826-198

Query Match      87.6%; Score 144.5; DB 7; Length 34;
Best Local Similarity 88.2%; Pred. No. 6.3e-15;
Matches 30; Conservative 0; Mismatches 3; Indels 1; Gaps 1;

Qy 1 SVSEIQ-XHNKGKHLNSXERVWLKRLKLDVHNY 33
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 1 SVSEIQLXHNGLKHLNDSXERVWLKRLKLDVHNY 34

RESULT 16
US-11-035-826-20
; Sequence 20, Application US/11035826
; Publication No. US20050282749A1
; GENERAL INFORMATION:
; APPLICANT: HENRIKSEN, DENNIS BANG
; APPLICANT: HOLST, JENS JUUL
; TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
; TITLE OF INVENTION: PREVENTION, DIAGNOSIS, AND PROGNOSIS OF BONE-RELATED
; TITLE OF INVENTION: DISORDERS AND CALCIUM HOMEOSTASIS RELATED SYNDROMES
; FILE REFERENCE: 57736 CIP2(46865)
; CURRENT APPLICATION NUMBER: US/11/035,826
; CURRENT FILING DATE: 2005-01-14
; PRIOR APPLICATION NUMBER: 10/393,524
; PRIOR FILING DATE: 2003-03-20
; PRIOR APPLICATION NUMBER: 09/954,304
; PRIOR FILING DATE: 2001-09-17
; PRIOR APPLICATION NUMBER: GB 0022844.5
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: GB 0029920.6
; PRIOR FILING DATE: 2000-12-07
; PRIOR APPLICATION NUMBER: 60/371,307
; PRIOR FILING DATE: 2002-04-10
; NUMBER OF SEQ ID NOS: 279
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 20
; LENGTH: 36
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-035-826-20

Query Match      87.6%; Score 144.5; DB 7; Length 36;
Best Local Similarity 85.3%; Pred. No. 6.7e-15;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

Qy 1 SVSEIQ-XHNKGKHLNSXERVWLKRLKLDVHNY 33
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 1 SVSEIQLXHNGLKHLNDSXERVWLKRLKLDVHNF 34

RESULT 15
US-11-035-826-198
; Sequence 198, Application US/11035826
; Publication No. US20050282749A1
; GENERAL INFORMATION:
; APPLICANT: HENRIKSEN, DENNIS BANG
; APPLICANT: HOLST, JENS JUUL
; TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
; TITLE OF INVENTION: PREVENTION, DIAGNOSIS, AND PROGNOSIS OF BONE-RELATED
; TITLE OF INVENTION: DISORDERS AND CALCIUM HOMEOSTASIS RELATED SYNDROMES
; FILE REFERENCE: 57736 CIP2(46865)
; CURRENT APPLICATION NUMBER: US/11/035,826
; CURRENT FILING DATE: 2005-01-14
; PRIOR APPLICATION NUMBER: 10/393,524
; PRIOR FILING DATE: 2003-03-20
; PRIOR APPLICATION NUMBER: 09/954,304
; PRIOR FILING DATE: 2001-09-17
; PRIOR APPLICATION NUMBER: GB 0022844.5
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: GB 0029920.6
; PRIOR FILING DATE: 2000-12-07
```

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; Sequence 19, Application US/11035826
; Publication No. US20050282749A1
; GENERAL INFORMATION:
; APPLICANT: HENRIKSEN, DENNIS BANG
; APPLICANT: HOLST, JENS JUUL
; TITLE OF INVENTION: USE OF GLP-2 AN
; TITLE OF INVENTION: PREVENTION, DI
; TITLE OF INVENTION: DISORDERS AND
; FILE REFERENCE: 57736 CIP2(46865)
; CURRENT APPLICATION NUMBER: US/11/0
; CURRENT FILING DATE: 2005-01-14
; PRIOR APPLICATION NUMBER: 10/393,52
; PRIOR FILING DATE: 2003-03-20
; PRIOR APPLICATION NUMBER: 09/954,30
; PRIOR FILING DATE: 2001-09-17
; PRIOR APPLICATION NUMBER: GB 002884
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: GB 002992
; PRIOR FILING DATE: 2000-12-07
; PRIOR APPLICATION NUMBER: 60/371,30
; PRIOR FILING DATE: 2002-04-10
; NUMBER OF SEQ ID NOS: 279
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 19
; LENGTH: 37
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-035-826-19

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```

Query Match      87.6%; Score 144.5; DB 7; Length 37;
Best Local Similarity 85.3%; Pred.No. 6.9e-15;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

Qy 1 SVSEIQ-XHNXGKHLNSKXRVETLKKLQDVHNY 33
      ||||| ||||| ||||| ||||| |||||
Db 1 SVSEIQ-OLMHLNLGKHLNSMRYETLKKLQDVHNF 34
      ||||| ||||| ||||| ||||| |||||

```

```

RESULT 18
US-11-126-996-1
; Sequence 1, Application US/11126996
; Publication No. US20050276843A1
; GENERAL INFORMATION:
; APPLICANT: Quay, Steven C.
; APPLICANT: Costantino, Henry R.
; APPLICANT: Kieppe, Mary S.
; APPLICANT: Li, Ching-Yuan
; TITLE OF INVENTION: Compositions and Methods for Enhanced
; TITLE OF INVENTION: Mucosal Delivery of Parathyroid Hormone
; FILE REFERENCE: 04-04US
; CURRENT APPLICATION NUMBER: US/11/126,996
; CURRENT FILING DATE: 2005-05-11
; PRIOR APPLICATION NUMBER: US 60/570,113
; PRIOR FILING DATE: 2004-05-10
; NUMBER OF SEQ ID NOS: 3
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 84
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-126-996-1

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```

Query Match      87.6%; Score 144.5; DB 7; Length 84;
Best Local Similarity 85.3%; Pred. No. 1.7e-14;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

Qy 1 SVSBIQ-XHNXGKHLNSXREVEWLKRLQDVHNY 33
      ||||| ||||| ||||| ||||| |||||
Db 1 SVSBIOLMHLNLGKHLNSMERVEWLKRLQDVHNF 34
      ||||| ||||| ||||| ||||| |||||

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RESULT 19
US-11-035-826-15

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; Sequence 15, Application US/11035826
; Publication No. US20050282749A1
; GENERAL INFORMATION:
; APPLICANT: HENRIKSEN, DENNIS BANG
; APPLICANT: HOLST, JENS JUUL
; TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
; TITLE OF INVENTION: PREVENTION, DIAGNOSIS, AND PROGNOSIS OF BONE-RELATED
; TITLE OF INVENTION: DISORDERS AND CALCIUM HOMEOSTASIS RELATED SYNDROMES
; FILE REFERENCE: 57736 CIP2(46865)
; CURRENT APPLICATION NUMBER: US/11/035,826
; CURRENT FILING DATE: 2005-01-14
; PRIOR APPLICATION NUMBER: 10/393,524
; PRIOR FILING DATE: 2003-03-20
; PRIOR APPLICATION NUMBER: 09/954,304
; PRIOR FILING DATE: 2001-09-17
; PRIOR APPLICATION NUMBER: GB 0022844.5
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: GB 0029920.6
; PRIOR FILING DATE: 2000-12-07
; PRIOR APPLICATION NUMBER: 60/371,307
; PRIOR FILING DATE: 2002-04-10
; NUMBER OF SEQ ID NOS: 279
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 15
; LENGTH: 84
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-035-826-15

```

Query Match 87.6%; Score 144.5; DB 7; Length 84;
Best Local Similarity 85.3%; Pred. No. 1.7e-14;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

RESULT 20
US-11-035-826-99
; Sequence 99, Application US/11035826
; Publication No. US20050282749A1
; GENERAL INFORMATION:
; APPLICANT: HENRIKSEN, DENNIS BANG
; APPLICANT: HOLST, JENS JUUL
; TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
; TITLE OF INVENTION: PREVENTION, DIAGNOSIS, AND PROGNOSIS OF BONE-RELATED
; TITLE OF INVENTION: DISORDERS AND CALCIUM HOMEOSTASIS RELATED SYNDROMES
; FILE REFERENCE: 57736 CIP2(46865)
; CURRENT APPLICATION NUMBER: US/11/035,826
; CURRENT FILING DATE: 2005-01-14
; PRIOR APPLICATION NUMBER: 10/393,524
; PRIOR FILING DATE: 2003-03-20
; PRIOR APPLICATION NUMBER: 09/954,304
; PRIOR FILING DATE: 2001-09-17
; PRIOR APPLICATION NUMBER: GB 0022844.5
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: GB 0029920.6
; PRIOR FILING DATE: 2000-12-07
; PRIOR APPLICATION NUMBER: 60/371,307
; PRIOR FILING DATE: 2002-04-10
; NUMBER OF SEQ ID NOS: 279
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 99
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-035-826-99

Query Match	87.0%	Score 143.5;	DB 7;	Length 34;
Best Local Similarity	85.3%	Pred. No. 8.8e-15;		
Matches 29; Conservative	1;	Mismatches 3;	Indels 1;	Gaps 1;


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/ LOCATION: (18)..(18)
/ OTHER INFORMATION: Nle
/ FEATURE:
/ NAME/KEY: MOD RES
/ LOCATION: (34)..(34)
/ OTHER INFORMATION: Aib
US-11-035-826-76

Query Match      85.8%; Score 141.5; DB 7; Length 34;
Best Local Similarity 97.0%; Pred. No. 1.7e-14;
Matches 32; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

Qy 1 SVSEIQ-XHNKXGHLNSXRVWLRKQLQDVHN 32
Db 1 SVSEIQXHNKXGHLNSXRVWLRKQLQDVHN 33

RESULT 27
US-11-035-826-260
/ Sequence 260, Application US/11035826
/ Publication No. US20050282749A1
/ GENERAL INFORMATION:
/ APPLICANT: HENRIKSEN, DENNIS BANG
/ APPLICANT: HOLST, JENS JUUL
/ TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
/ TITLE OF INVENTION: PREVENTION, DIAGNOSIS AND PROGNOSIS OF BONE-RELATED
/ TITLE OF INVENTION: DISORDERS AND CALCIUM HOMEOSTASIS RELATED SYNDROMES
/ FILE REFERENCE: 57736 CIP2(46865)
/ CURRENT APPLICATION NUMBER: US/11/035,826
/ PRIOR FILING DATE: 2005-01-14
/ PRIOR APPLICATION NUMBER: 10/393,524
/ PRIOR FILING DATE: 2003-03-20
/ PRIOR APPLICATION NUMBER: 09/954,304
/ PRIOR FILING DATE: 2000-09-18
/ PRIOR APPLICATION NUMBER: GB 0022844.5
/ PRIOR FILING DATE: 2000-12-07
/ PRIOR APPLICATION NUMBER: 60/371,307
/ PRIOR FILING DATE: 2002-04-10
/ NUMBER OF SEQ ID NOS: 279
/ SOFTWARE: PatentIn version 3.3
/ SEQ ID NO 260
/ LENGTH: 34
/ TYPE: PRT
/ ORGANISM: Homo sapiens
/ NAME/KEY: MOD RES
/ LOCATION: (8)..(8)
/ OTHER INFORMATION: Met, Ala, Ser, Val, Leu, Ile, or Trp
/ FEATURE:
/ NAME/KEY: MOD RES
/ LOCATION: (18)..(18)
/ OTHER INFORMATION: Met, Ala, Ser, Val, Leu, Ile, or Trp
/ NAME/KEY: MOD RES
/ LOCATION: (34)..(34)
/ OTHER INFORMATION: Phe or Tyr
/ FEATURE:
/ OTHER INFORMATION: See specification as filed for detailed description of
/ OTHER INFORMATION: substitutions and preferred embodiments
US-11-035-826-279

Query Match      85.8%; Score 141.5; DB 7; Length 34;
Best Local Similarity 93.9%; Pred. No. 1.7e-14;
Matches 31; Conservative 0; Mismatches 1; Indels 1; Gaps 1;

Qy 1 SVSEIQ-XHNKXGHLNSXRVWLRKQLQDVHN 32
Db 1 SVSEIQLXHNKXGHLNSXRVWLRKQLQDVHN 33

RESULT 29
US-11-035-826-77
/ Sequence 77, Application US/11035826
/ Publication No. US20050282749A1
/ GENERAL INFORMATION:
/ APPLICANT: HENRIKSEN, DENNIS BANG
/ APPLICANT: HOLST, JENS JUUL
/ TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
/ TITLE OF INVENTION: PREVENTION, DIAGNOSIS, AND PROGNOSIS OF BONE-RELATED
/ TITLE OF INVENTION: DISORDERS AND CALCIUM HOMEOSTASIS RELATED SYNDROMES
/ FILE REFERENCE: 57736 CIP2(46865)
/ CURRENT APPLICATION NUMBER: US/11/035,826
/ PRIOR FILING DATE: 2005-01-14
/ PRIOR APPLICATION NUMBER: 10/393,524
/ PRIOR FILING DATE: 2003-03-20
/ PRIOR APPLICATION NUMBER: 09/954,304
/ PRIOR FILING DATE: 2001-09-17
/ PRIOR APPLICATION NUMBER: GB 0022844.5
/ PRIOR FILING DATE: 2000-09-18
/ PRIOR APPLICATION NUMBER: GB 0029920.6
/ PRIOR FILING DATE: 2000-12-07
/ PRIOR APPLICATION NUMBER: 60/371,307
/ PRIOR FILING DATE: 2002-04-10
/ NUMBER OF SEQ ID NOS: 279
/ SOFTWARE: PatentIn version 3.3
/ SEQ ID NO 77
/ LENGTH: 34
/ TYPE: PRT
/ ORGANISM: Homo sapiens
/ FEATURE:
/ NAME/KEY: MOD RES
/ LOCATION: (3)..(3)
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; OTHER INFORMATION: Aib
US-11-035-826-77

Query Match      85.2%; Score 140.5; DB 7; Length 34;
Best Local Similarity 82.4%; Pred. No. 2.4e-14;
Matches 28; Conservative 1; Mismatches 4; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGHLNSXERVELRKKLQDVHNY 33
   ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 1 SVXEIQLMHNLGKHLNSMERVELRKKLQDVHNF 34

RESULT 30
US-11-035-826-82
; Sequence 82, Application US/11035826
; Publication No. US20050282749A1
; GENERAL INFORMATION:
; APPLICANT: HENRIKSEN, DENNIS BANG
; TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
; TITLE OF INVENTION: PREVENTION, DIAGNOSIS, AND PROGNOSIS OF BONE-RELATED
; TITLE OF INVENTION: DISORDERS AND CALCIUM HOMEOSTASIS RELATED SYNDROMES
; FILE REFERENCE: 57736 CIP2(46865)
; CURRENT APPLICATION NUMBER: US/11/035,826
; CURRENT FILING DATE: 2005-01-14
; PRIOR APPLICATION NUMBER: 10/393,524
; PRIOR FILING DATE: 2003-03-20
; PRIOR APPLICATION NUMBER: 09/954,304
; PRIOR FILING DATE: 2001-09-17
; PRIOR APPLICATION NUMBER: GB 0022844.5
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: GB 0029920.6
; PRIOR FILING DATE: 2000-12-07
; PRIOR APPLICATION NUMBER: 60/371,307
; PRIOR FILING DATE: 2002-04-10
; NUMBER OF SEQ ID NOS: 279
; SOFTWARE: Patentin version 3.3
; SEQ ID NO 82
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: MOD RES
; LOCATION: (17)..(17)
; OTHER INFORMATION: Aib
US-11-035-826-82

Query Match      85.2%; Score 140.5; DB 7; Length 34;
Best Local Similarity 82.4%; Pred. No. 2.4e-14;
Matches 28; Conservative 1; Mismatches 4; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGHLNSXERVELRKKLQDVHNY 33
   ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 1 SVXEIQLMHNLGKHLNSMERVELRKKLQDVHNF 34

RESULT 31
US-11-035-826-88
; Sequence 88, Application US/11035826
; Publication No. US20050282749A1
; GENERAL INFORMATION:
; APPLICANT: HENRIKSEN, DENNIS BANG
; TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
; TITLE OF INVENTION: PREVENTION, DIAGNOSIS, AND PROGNOSIS OF BONE-RELATED
; TITLE OF INVENTION: DISORDERS AND CALCIUM HOMEOSTASIS RELATED SYNDROMES
; FILE REFERENCE: 57736 CIP2(46865)
; CURRENT APPLICATION NUMBER: US/11/035,826
; CURRENT FILING DATE: 2005-01-14
; PRIOR APPLICATION NUMBER: 10/393,524
; PRIOR FILING DATE: 2003-03-20
; PRIOR APPLICATION NUMBER: 09/954,304
; PRIOR FILING DATE: 2001-09-17
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; OTHER INFORMATION: Aib
US-11-035-826-77

Query Match      85.2%; Score 140.5; DB 7; Length 34;
Best Local Similarity 82.4%; Pred. No. 2.4e-14;
Matches 28; Conservative 1; Mismatches 4; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGHLNSXERVELRKKLQDVHNY 33
   ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 1 SVXEIQLMHNLGKHLNSMERVELRKKLQDVHNF 34

RESULT 32
US-11-035-826-100
; Sequence 100, Application US/11035826
; Publication No. US20050282749A1
; GENERAL INFORMATION:
; APPLICANT: HOLST, JENS JUUL
; TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
; TITLE OF INVENTION: PREVENTION, DIAGNOSIS, AND PROGNOSIS OF BONE-RELATED
; FILE REFERENCE: 57736 CIP2(46865)
; CURRENT APPLICATION NUMBER: US/11/035,826
; CURRENT FILING DATE: 2005-01-14
; PRIOR APPLICATION NUMBER: 10/393,524
; PRIOR FILING DATE: 2003-03-20
; PRIOR APPLICATION NUMBER: 09/954,304
; PRIOR FILING DATE: 2001-09-17
; PRIOR APPLICATION NUMBER: GB 0022844.5
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: GB 0029920.6
; PRIOR FILING DATE: 2000-12-07
; PRIOR APPLICATION NUMBER: 60/371,307
; NUMBER OF SEQ ID NOS: 279
; SOFTWARE: Patentin version 3.3
; SEQ ID NO 100
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-035-826-100

Query Match      85.2%; Score 140.5; DB 7; Length 34;
Best Local Similarity 82.4%; Pred. No. 2.4e-14;
Matches 28; Conservative 1; Mismatches 4; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGHLNSXERVELRKKLQDVHNY 33
   ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 1 SVSEIQFMHFGHFNSEMERVELRKKLQDVHNF 34

RESULT 33
US-11-035-826-183
; Sequence 183, Application US/11035826
; Publication No. US20050282749A1
; GENERAL INFORMATION:
; APPLICANT: HENRIKSEN, DENNIS BANG
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APPLICANT: HOLST, JENS JUUL
; TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
; TITLE OF INVENTION: PREVENTION, DIAGNOSIS, AND PROGNOSIS OF BONE-RELATED
; TITLE OF INVENTION: DISORDERS AND CALCIUM HOMEOSTASIS RELATED SYNDROMES
; FILE REFERENCE: 57736 CIP2(46865)
; CURRENT APPLICATION NUMBER: US/11/035,826
; PRIOR FILING DATE: 2005-01-14
; PRIOR APPLICATION NUMBER: 10/393,524
; PRIOR FILING DATE: 2003-03-20
; PRIOR APPLICATION NUMBER: 09/954,304
; PRIOR FILING DATE: 2001-09-17
; PRIOR APPLICATION NUMBER: GB 0022844.5
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: GB 0029920.6
; PRIOR FILING DATE: 2000-12-07
; PRIOR APPLICATION NUMBER: 60/371,307
; PRIOR FILING DATE: 2002-04-10
; NUMBER OF SEQ ID NOS: 279
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 183
; LENGTH: 34
; TYPE: PR1
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: Disulphide or amide bond between residues 13 and 17
US-11-035-826-183

Query Match 85.2%; Score 140.5; DB 7; Length 34;
Best Local Similarity 82.4%; Pred. No. 2.4e-14;
Matches 28; Conservative 1; Mismatches 4; Indels 1; Gaps 1;

Qy 1 SVSEIQ-XHNXGKHLNSXRVWLRLKKLQDVHNY 33
Db 1 SVSEIQLMNLGKHLNMDRVERWLRLKKLQDVHNF 34

RESULT 34
US-11-035-826-193
; Sequence 193, Application US/11035826
; Publication No. US20050282749A1
; GENERAL INFORMATION:
; APPLICANT: HOLST, JENS JUUL
; TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
; TITLE OF INVENTION: PREVENTION, DIAGNOSIS AND PROGNOSIS OF BONE-RELATED
; TITLE OF INVENTION: DISORDERS AND CALCIUM HOMEOSTASIS RELATED SYNDROMES
; FILE REFERENCE: 57736 CIP2(46865)
; CURRENT APPLICATION NUMBER: US/11/035,826
; PRIOR FILING DATE: 2005-01-14
; PRIOR APPLICATION NUMBER: 10/393,524
; PRIOR FILING DATE: 2003-03-20
; PRIOR APPLICATION NUMBER: 09/954,304
; PRIOR FILING DATE: 2001-09-17
; PRIOR APPLICATION NUMBER: GB 0022844.5
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: GB 0029920.6
; PRIOR FILING DATE: 2000-12-07
; PRIOR APPLICATION NUMBER: 60/371,307
; PRIOR FILING DATE: 2002-04-10
; NUMBER OF SEQ ID NOS: 279
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 193
; LENGTH: 34
; TYPE: PR1
; ORGANISM: Bos sp.
; FEATURE:
; NAME/KEY: MOD RES
; LOCATION: (8)..(8)
; OTHER INFORMATION: N1e
; FEATURE:
; NAME/KEY: MOD RES
; LOCATION: (18)..(18)
; OTHER INFORMATION: N1e

FEATURE:
; OTHER INFORMATION: Disulphide or amide bond between residues 26 and 30
US-11-035-826-193

Query Match 85.2%; Score 140.5; DB 7; Length 34;
Best Local Similarity 88.2%; Pred. No. 2.4e-14;
Matches 30; Conservative 2; Mismatches 1; Indels 1; Gaps 1;

Qy 1 SVSEIQ-XHNXGKHLNSXRVWLRLKKLQDVHNY 33
Db 1 AVSEIQFXHNLGKHLSSXRVWLRLKKLQDVHNY 34

RESULT 35
US-11-035-826-195
; Sequence 195, Application US/11035826
; Publication No. US20050282749A1
; GENERAL INFORMATION:
; APPLICANT: HENRIKSEN, DENNIS BANG
; APPLICANT: HOLST, JENS JUUL
; TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
; TITLE OF INVENTION: PREVENTION, DIAGNOSIS, AND PROGNOSIS OF BONE-RELATED
; TITLE OF INVENTION: DISORDERS AND CALCIUM HOMEOSTASIS RELATED SYNDROMES
; FILE REFERENCE: 57736 CIP2(46865)
; CURRENT APPLICATION NUMBER: US/11/035,826
; CURRENT FILING DATE: 2005-01-14
; PRIOR APPLICATION NUMBER: 10/393,524
; PRIOR FILING DATE: 2003-03-20
; PRIOR APPLICATION NUMBER: 09/954,304
; PRIOR FILING DATE: 2001-09-17
; PRIOR APPLICATION NUMBER: GB 0022844.5
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: GB 0029920.6
; PRIOR FILING DATE: 2000-12-07
; PRIOR APPLICATION NUMBER: 60/371,307
; PRIOR FILING DATE: 2002-04-10
; NUMBER OF SEQ ID NOS: 279
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 195
; LENGTH: 34
; TYPE: PR1
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: Disulphide or amide bond between residues 13 and 17
; FEATURE:
; OTHER INFORMATION: Disulphide or amide bond between residues 26 and 30
US-11-035-826-195

Query Match 85.2%; Score 140.5; DB 7; Length 34;
Best Local Similarity 82.4%; Pred. No. 2.4e-14;
Matches 28; Conservative 1; Mismatches 4; Indels 1; Gaps 1;

Qy 1 SVSEIQ-XHNXGKHLNSXRVWLRLKKLQDVHNY 33
Db 1 SVSEIQLMNLGKHLNMDRVERWLRLKKLQDVHNF 34

RESULT 36
US-11-035-826-271
; Sequence 271, Application US/11035826
; Publication No. US20050282749A1
; GENERAL INFORMATION:
; APPLICANT: HENRIKSEN, DENNIS BANG
; APPLICANT: HOLST, JENS JUUL
; TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
; TITLE OF INVENTION: PREVENTION, DIAGNOSIS, AND PROGNOSIS OF BONE-RELATED
; TITLE OF INVENTION: DISORDERS AND CALCIUM HOMEOSTASIS RELATED SYNDROMES
; FILE REFERENCE: 57736 CIP2(46865)
; CURRENT APPLICATION NUMBER: US/11/035,826
; CURRENT FILING DATE: 2005-01-14
; PRIOR APPLICATION NUMBER: 10/393,524
; PRIOR FILING DATE: 2003-03-20
; PRIOR APPLICATION NUMBER: 09/954,304

;
; PRIOR FILING DATE: 2001-09-17
; PRIOR APPLICATION NUMBER: GB 0022844.5
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: GB 0029920.6
; PRIOR FILING DATE: 2000-12-07
; PRIOR APPLICATION NUMBER: 60/371,307
; PRIOR FILING DATE: 2002-04-10
; NUMBER OF SEQ ID NOS: 279
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 271
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
; NAME/KEY: MOD_RES
; LOCATION: (1)..(1)
; OTHER INFORMATION: Gly, D-Ser, D-Ala, or Tyr
US-11-035-826-271

Query Match 85.2%; Score 140.5; DB 7; Length 34;
Best Local Similarity 84.8%; Pred. No. 2.4e-14;
Matches 28; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

QY 2 VSEIQ-XHNXGKHLNSXERVEWLKKLQDVHNY 33
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Db 2 VSEIQLMHNLGKHLNSMERVEWLKKLQDVHNF 34

RESULT 37
US-11-035-826-35
; Sequence 35, Application US/11035826
; Publication No. US20050282749A1
; GENERAL INFORMATION:
; APPLICANT: HENRIKSEN, DENNIS BANG
; APPLICANT: HOLST, JENS JUUL
; TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
; TITLE OF INVENTION: PREVENTION, DIAGNOSIS, AND PROGNOSIS OF BONE-RELATED
; TITLE OF INVENTION: DISORDERS AND CALCIUM HOMEOSTASIS RELATED SYNDROMES
; FILE REFERENCE: 57736 CIP2(46865)
; CURRENT APPLICATION NUMBER: US/11/035,826
; CURRENT FILING DATE: 2005-01-14
; PRIOR APPLICATION NUMBER: 10/393,524
; PRIOR FILING DATE: 2003-03-20
; PRIOR APPLICATION NUMBER: 09/954,304
; PRIOR FILING DATE: 2001-09-17
; PRIOR APPLICATION NUMBER: GB 0022844.5
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: GB 0029920.6
; PRIOR FILING DATE: 2000-12-07
; PRIOR APPLICATION NUMBER: 60/371,307
; NUMBER OF SEQ ID NOS: 279
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 35
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
; NAME/KEY: MOD_RES
; LOCATION: (15)..(15)
; OTHER INFORMATION: Cha
US-11-035-826-35

Query Match 84.5%; Score 139.5; DB 7; Length 34;
Best Local Similarity 82.4%; Pred. No. 3.3e-14;
Matches 28; Conservative 1; Mismatches 4; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGKHLNSXERVEWLKKLQDVHNY 33
||||| || ||||| ||||| ||||| ||||| |||||
Db 1 SVSEIQLMHNLGKHLNSMERVEWLKKLQDVHNF 34

RESULT 38

US-11-035-826-39
; Sequence 39, Application US/11035826
; Publication No. US20050282749A1
; GENERAL INFORMATION:
; APPLICANT: HENRIKSEN, DENNIS BANG
; APPLICANT: HOLST, JENS JUUL
; TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
; TITLE OF INVENTION: PREVENTION, DIAGNOSIS, AND PROGNOSIS OF BONE-RELATED
; TITLE OF INVENTION: DISORDERS AND CALCIUM HOMEOSTASIS RELATED SYNDROMES
; FILE REFERENCE: 57736 CIP2(46865)
; CURRENT APPLICATION NUMBER: US/11/035,826
; CURRENT FILING DATE: 2005-01-14
; PRIOR APPLICATION NUMBER: 10/393,524
; PRIOR FILING DATE: 2003-03-20
; PRIOR APPLICATION NUMBER: 09/954,304
; PRIOR FILING DATE: 2001-09-17
; PRIOR APPLICATION NUMBER: GB 0022844.5
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: GB 0029920.6
; PRIOR FILING DATE: 2000-12-07
; PRIOR APPLICATION NUMBER: 60/371,307
; PRIOR FILING DATE: 2002-04-10
; NUMBER OF SEQ ID NOS: 279
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 39
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
; NAME/KEY: MOD_RES
; LOCATION: (24)..(24)
; OTHER INFORMATION: Cha
US-11-035-826-39

Query Match 84.5%; Score 139.5; DB 7; Length 34;
Best Local Similarity 82.4%; Pred. No. 3.3e-14;
Matches 28; Conservative 1; Mismatches 4; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGKHLNSXERVEWLKKLQDVHNY 33
||||| || ||||| ||||| ||||| ||||| |||||
Db 1 SVSEIQLMHNLGKHLNSMERVEWLKKLQDVHNF 34

RESULT 39
US-11-035-826-41
; Sequence 41, Application US/11035826
; Publication No. US20050282749A1
; GENERAL INFORMATION:
; APPLICANT: HENRIKSEN, DENNIS BANG
; APPLICANT: HOLST, JENS JUUL
; TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
; TITLE OF INVENTION: PREVENTION, DIAGNOSIS, AND PROGNOSIS OF BONE-RELATED
; TITLE OF INVENTION: DISORDERS AND CALCIUM HOMEOSTASIS RELATED SYNDROMES
; FILE REFERENCE: 57736 CIP2(46865)
; CURRENT APPLICATION NUMBER: US/11/035,826
; CURRENT FILING DATE: 2005-01-14
; PRIOR APPLICATION NUMBER: 10/393,524
; PRIOR FILING DATE: 2003-03-20
; PRIOR APPLICATION NUMBER: 09/954,304
; PRIOR FILING DATE: 2001-09-17
; PRIOR APPLICATION NUMBER: GB 0022844.5
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: GB 0029920.6
; PRIOR FILING DATE: 2000-12-07
; PRIOR APPLICATION NUMBER: 60/371,307
; PRIOR FILING DATE: 2002-04-10
; NUMBER OF SEQ ID NOS: 279
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 41
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
; NAME/KEY: MOD_RES
; LOCATION: (15)..(15)
; OTHER INFORMATION: Cha
US-11-035-826-41

; NAME/KEY: MOD RES
; LOCATION: (26)..(28)
; OTHER INFORMATION: Cha
US-11-035-826-41

Query Match 84.5%; Score 139.5; DB 7; Length 34;
Best Local Similarity 82.4%; Pred. No. 3.3e-14;
Matches 28; Conservative 1; Mismatches 4; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGHLNSXERVEWLRKKLQDVHNY 33
||||| ||||||| ||||||| ||||||| |||
Db 1 SVSEIQLMHNLGKHLNSMERVEWLRKKXQDVHNF 34

RESULT 40

US-11-035-826-42
; Sequence 42, Application US/11035826
; Publication No. US20050282749A1
; GENERAL INFORMATION:
; APPLICANT: HENRIKSEN, DENNIS BANG
; APPLICANT: HOLST, JENS JUUL
; TITLE OF INVENTION: USE OF GLP-2 AND RELATED COMPOUNDS FOR THE TREATMENT,
; TITLE OF INVENTION: PREVENTION, DIAGNOSIS, AND PROGNOSIS OF BONE-RELATED
; TITLE OF INVENTION: DISORDERS AND CALCIUM HOMEOSTASIS RELATED SYNDROMES
; FILE REFERENCE: 57736 CIP2(46865)
; CURRENT APPLICATION NUMBER: US/11/035,826
; CURRENT FILING DATE: 2005-01-14
; PRIOR APPLICATION NUMBER: 10/393,524
; PRIOR FILING DATE: 2003-03-20
; PRIOR APPLICATION NUMBER: 09/954,304
; PRIOR FILING DATE: 2001-09-17
; PRIOR APPLICATION NUMBER: GB 0022844.5
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: GB 0029920.6
; PRIOR FILING DATE: 2000-12-07
; PRIOR APPLICATION NUMBER: 60/371,307
; PRIOR FILING DATE: 2002-04-10
; NUMBER OF SEQ ID NOS: 279
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 42
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: MOD RES
; LOCATION: (31)..(31)
; OTHER INFORMATION: Cha
US-11-035-826-42

Query Match 84.5%; Score 139.5; DB 7; Length 34;
Best Local Similarity 82.4%; Pred. No. 3.3e-14;
Matches 28; Conservative 1; Mismatches 4; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGHLNSXERVEWLRKKLQDVHNY 33
||||| ||||||| ||||||| ||||||| |||
Db 1 SVSEIQLMHNLGKHLNSMERVEWLRKKLQDXHNF 34

Search completed: January 28, 2006, 01:38:26
Job time : 9 secs

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OM protein - protein search, using sw model

Run on: January 28, 2006, 01:07:47 ; Search time 38 Seconds
(without alignments)
83.557 Million cell updates/sec

Title: US-09-674-597A-16

Perfect score: 165

Sequence: 1 SVSEIQHXNGKHLNSXRVEMLRKKLQDVHNY 33

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 100 summaries

Database : PIR_80:*

1: pir1:*

2: pir2:*

3: pir3:*

4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	144.5	87.6	115	1 PTHU	parathyroid hormon
2	139.5	84.5	115	1 PTPG	parathyroid hormon
3	139.5	84.5	115	2 JC4202	parathyroid hormon
4	136.5	82.7	115	1 PTBO	parathyroid hormon
5	127.5	77.3	115	2 A05091	parathyroid hormon
6	119.5	72.4	105	2 I51851	parathyroid hormon
7	96.5	58.5	119	2 A34937	parathyroid hormon
8	59	35.8	1257	1 I58383	retinoblastoma bin
9	59	35.8	3678	2 S28916	dystrophin - mouse
10	55	33.3	764	1 BBHU	complement factor
11	52.5	31.8	1172	2 T00065	hypothetical prote
12	52	31.5	3685	1 A27605	dystrophin, muscle
13	51	30.9	118	2 T44470	transposase tnpD (
14	51	30.9	240	1 TQEC34	transposase - Esch
15	51	30.9	236	2 S09261	probable transposa
16	51	30.9	2479	1 MNWRA	nonstructural poly
17	50	30.3	334	2 F86462	AlGI-like protein,
18	50	30.3	513	1 RGECAV	transcription regu
19	50	30.3	513	2 P90866	transcription regu
20	50	30.3	513	2 C85752	hypothetical prote
21	50	30.3	838	2 C84554	hypothetical prote
22	49.5	30.0	2364	1 A44159	spectrin beta-G ch
23	49	29.7	94	2 T09450	virulence associat
24	49	29.7	94	2 C64559	virulence associat
25	49	29.7	948	2 S26945	DNA-directed RNA p
26	49	29.7	2024	2 A54103	centrosome autoant
27	48.5	29.4	1354	2 S74244	serine/threonine-s
28	48	29.1	162	2 T10831	Y4xD protein - Rhi
29	48	29.1	229	2 E85806	hypothetical prote

30	48	29.1	229	2 D90958	hypothetical prote
31	48	29.1	286	2 B69834	conserved hypothet
32	48	29.1	295	2 F90938	hypothetical prote
33	48	29.1	295	2 B85664	transposase for IS
34	48	29.1	295	2 D90801	hypothetical prote
35	48	29.1	295	2 B85613	probable transposa
36	48	29.1	295	2 B85787	probable transposa
37	48	29.1	295	2 T00315	transposase - Esch
38	48	29.1	295	2 E85661	probable transposa
39	48	29.1	295	2 T05866	hypothetical prote
40	48	29.1	687	2 E69733	PBSX prophage ORF
41	48	29.1	1038	2 T15098	hypothetical prote
42	48	29.1	1295	2 T30528	reverse transcript
43	47.5	28.8	189	2 T19559	hypothetical prote
44	47.5	28.8	462	1 S00552	mitochondrial proc
45	47	28.5	312	2 T33296	hypothetical prote
46	47	28.5	326	2 H97346	oligopeptide ABC t
47	47	28.5	403	2 T09634	phosphoglycerate k
48	47	28.5	752	1 C2HU	complement C2 prec
49	46.5	28.2	167	2 AC0481	probable gluconoki
50	46.5	28.2	168	2 S36294	T-cell receptor ga
51	46.5	28.2	178	2 AB0310	gluconokinase (EC
52	46.5	28.2	179	2 S36289	T-cell receptor ga
53	46.5	28.2	202	2 S36293	hydrolase (importe
54	46.5	28.2	286	2 AG3220	probable transpos
55	46.5	28.2	346	2 H85057	hypothetical prote
56	46	27.9	138	2 T49183	ribosomal protein
57	46	27.9	183	1 R58Y32	transposase for IS
58	46	27.9	296	2 A85698	transposase for IS
59	46	27.9	296	2 A99840	IS629 transposase
60	46	27.9	296	2 C90978	probable RNA helic
61	46	27.9	296	2 H85824	IS629 transposase
62	46	27.9	506	1 S31229	leucine-tRNA ligas
63	46	27.9	924	2 P72408	hypothetical prote
64	46	27.9	947	2 T08605	hypothetical prote
65	46	27.9	1189	1 JC2366	protein-tyrosine-p
66	46	27.9	1232	2 A48446	DNA topoisomerase
67	46	27.9	1422	2 T18404	chromatin remodel
68	46	27.9	2109	2 I38414	transcription fact
69	46	27.9	3131	2 S39842	enniatin synthetas
70	46	27.9	3660	1 S02041	dystrophin, muscle
71	45.5	27.6	90	2 A97755	hypothetical prote
72	45.5	27.6	136	2 G82240	hypothetical prote
73	45.5	27.6	206	2 C49054	T-cell receptor ga
74	45.5	27.6	278	2 T24330	hypothetical prote
75	45.5	27.6	348	2 B75097	hypothetical prote
76	45.5	27.6	353	2 A70365	conserved hypothet
77	45.5	27.6	385	2 AE3402	ribonuclease III (
78	45.5	27.6	564	1 HMTVC2	hemagglutinin prec
79	45.5	27.6	653	2 H96630	hypothetical prote
80	45.5	27.6	762	2 G66999	hydrogenase matura
81	45.5	27.6	837	2 H82970	hypothetical prote
82	45.5	27.6	1082	2 H70360	cation efflux syst
83	45.5	27.6	1354	2 S69211	serine/threonine-s
84	45.5	27.6	1387	2 T30335	KLP2 protein - Afr
85	45	27.3	187	2 S70186	21K protein - Shig
86	45	27.3	201	2 G71428	hypothetical prote
87	45	27.3	319	2 T45980	hypothetical prote
88	45	27.3	323	2 F84423	hypothetical prote
89	45	27.3	330	2 T45981	hypothetical prote
90	45	27.3	356	2 T04665	probable serine/th
91	45	27.3	415	2 C85420	protein kinase-lik
92	45	27.3	421	2 D97207	phospholipase C fa
93	45	27.3	441	2 B84854	hypothetical prote
94	45	27.3	445	2 JQ0422	beta-tubulin 1 - a
95	45	27.3	471	2 T21349	hypothetical prote
96	45	27.3	531	2 T51956	probable beta-gluc
97	45	27.3	594	1 E64622	excinuclease ABC c
98	45	27.3	594	2 B71893	excinuclease ABC c
99	45	27.3	924	2 S34926	hypothetical prote
100	45	27.3	1043	2 T13172	gag-like protein p

ALIGNMENTS

RESULT 1

PTHU

parathyroid hormone precursor [validated] - human
N:Alternate names: preoparathyroid hormone
C:Species: Homo sapiens (man)
C:Date: 24-Apr-1984 #sequence_revision 19-Jan-1996 #text_change 09-Jul-2004
A:Accession: A19339; S53790; A93169; A93789; A93783; A90426; A94410; I38
R:Vasicek, T.J.; McDewitt, B.E.; Freeman, M.W.; Fennick, B.J.; Hendy, G.N.; Potts Jr., J.
Proc. Natl. Acad. Sci. U.S.A. 80, 2127-2131, 1983
A:Title: Nucleotide sequence of the human parathyroid hormone gene.
A:Reference number: A19339; MUID:83169834; PMID:6220408
A:Accession: A19339
A:Molecule type: DNA
A:Residues: 1-115 <VAS>
A:Cross-references: UNIPROT:P01270; UNIPARC:UPI000013290A; GB:J00301; NID:gi90702; PIDN:
R:Yanaguchi, T.; Fukase, M.; Sugimoto, T.; Kido, H.; Chihara, K.
Biol. Chem. Hoppe-Seyler 375, 821-824, 1994
A:Title: Purification of meprin from human kidney and its role in parathyroid hormone de
A:Reference number: S53790; MUID:95225988; PMID:7710697
A:Accession: S53790
A:Molecule type: protein
A:Residues: 'X', '33', 'X', '35-46;65-84;105-110 <YAM>
A:Cross-references: UNIPARC:UPI00001734E1; UNIPARC:UPI00001734E2; UNIPARC:UPI00001734E3
A:Note: peptides generated in vitro and in vivo by meprin; peptide cleavage also occur
R:Jacobs, J.W.; Kemper, B.; Niall, H.D.; Habener, J.F.; Potts Jr., J.T.
Nature 249, 155-157, 1974
A:Title: Structural analysis of human parathyroid hormone by a new microsequencing ap
A:Reference number: A93169; MUID:74174567; PMID:4833516
A:Accession: A93169
A:Molecule type: protein
A:Residues: 26-37 <JAC>
A:Cross-references: UNIPARC:UPI00001734E4
R:Olstad, O.K.; Reppe, S.; Gabrielsen, O.S.; Hartmanis, M.; Blingsmo, O.R.; Gautvik, V.T
Eur. J. Biochem. 205, 311-319, 1992
A:Title: Isolation and characterization of two biologically active O-glycosylated forms
A:Reference number: S21199; MUID:92209518; PMID:1555591
A:Accession: S21199
A:Molecule type: protein
A:Residues: 32-114, 'N' <OLS>
A:Cross-references: UNIPARC:UPI00001734E5
A:Note: cloned sequence expressed in Saccharomyces cerevisiae exhibited O-glycosylation;
R:Niall, H.D.; Sauer, R.T.; Jacobs, J.W.; Keutmann, H.T.; Segre, G.V.; O'Riordan, J.L.H.
Proc. Natl. Acad. Sci. U.S.A. 71, 384-388, 1974
A:Title: The amino-acid sequence of the amino-terminal 37 residues of human parathyroid
A:Reference number: A93789; MUID:74111656; PMID:4521809
A:Accession: A93789
A:Molecule type: protein
A:Residues: 32-68 <NIA>
A:Cross-references: UNIPARC:UPI000002DA05
R:Brewer Jr., H.B.; Fairwell, T.; Ronan, R.; Sizemore, G.W.; Arnaud, C.D.
Proc. Natl. Acad. Sci. U.S.A. 69, 3585-3588, 1972
A:Title: Human parathyroid hormone: amino-acid sequence of the amino-terminal residues 1
A:Reference number: A93783; MUID:73070429; PMID:4509319
A:Accession: A93783
A:Molecule type: protein
A:Residues: 32-52, 'Q', '54-58, 'K', '60, 'L', '62-65 <BRE>
A:Cross-references: UNIPARC:UPI00001734E6
A:Note: this sequence was determined by sequenator and mass spectroscopic identification
R:Keutmann, H.T.; Niall, H.D.; O'Riordan, J.L.H.; Potts Jr., J.T.
Biochemistry 14, 1842-1847, 1975
A:Title: A reinvestigation of the amino-terminal sequence of human parathyroid hormone.
A:Reference number: A90387; MUID:75146516; PMID:1125201
A:Accession: A90387
A:Molecule type: protein
A:Residues: 52-75 <KE3>
A:Cross-references: UNIPARC:UPI00001734E7
R:Keutmann, H.T.; Sauer, M.M.; Hendy, G.N.; O'Riordan, J.L.H.; Potts Jr., J.T.
Biochemistry 17, 5723-5729, 1978
A:Title: Complete amino acid sequence of human parathyroid hormone.

A:Reference number: A90426; MUID:79082855; PMID:728431

A:Accession: A90426

A:Molecule type: protein

A:Residues: 61-106, 'D', '108-115 <KEU>

A:Cross-references: UNIPARC:UPI00001734E8

R:Keutmann, H.T.; Niall, H.D.; Jacobs, J.W.; Barling, P.M.; Hendy, G.N.; O'Riordan, J.L.
in Calcium-regulating Hormones, Talmadge, R.V., Owen, M., and Parsons, J.A., eds., pp.9-

A:Reference number: A94410

A:Accession: A94410

A:Molecule type: protein

A:Residues: 75-100 <KE2>

A:Cross-references: UNIPARC:UPI00001734E9

R:Tregear, G.W.; van Riettschoten, J.; Green, E.; Niall, H.D.; Keutmann, H.T.; Parsons, J.
Hoppe-Seyler's Z. Physiol. Chem. 355, 415-421, 1974

A:Title: Solid-phase synthesis of the biologically active N-terminal 1-34 peptide of hum

A:Reference number: A91660; MUID:75059220; PMID:4474131

A:Contents: annotation; synthesis of residues 32-65

A:Note: the biologically active amino-terminal 34 residues of parathyroid hormone were s
at renal adenylate cyclase assay and with the bovine hormone's active region in the chic

R:Andreatta, R.H.; Hartmann, A.; Joehl, A.; Kamber, B.; Maier, R.; Riniker, B.; Rittel,
Helv. Chim. Acta 56, 470-473, 1973

A:Title: Synthese der Sequenz 1-34 von menschlichem Parat-hormon.

A:Reference number: A91635; MUID:73227467; PMID:4721748

A:Contents: annotation; synthesis of residues 32-65

A:Note: the amino-terminal 34 residues of the parathyroid hormone sequence as determined
into thyroparathyroidectomized rats caused a distinct increase in plasma calcium level

R:Hendy, G.N.; Kronenberg, H.M.; Potts, J.T.

Proc. Natl. Acad. Sci. U.S.A. 78, 7365-7369, 1981

A:Title: Nucleotide sequence of cloned cDNAs encoding human preproparathyroid hormone.

A:Reference number: I38342; MUID:82150870; PMID:6950381

A:Accession: I38342

A:Status: translated from GB/EMBL/DBDJ

A:Molecule type: mRNA

A:Residues: 1-115 <RES>

A:Cross-references: UNIPARC:UPI000013290A; EMBL:V00597; NID:G37143; PIDN:CAA23843.1; PID

C:Genetics:

A:Gene: GDB:PTH

A:Cross-references: GDB:I19522; OMIM:168450

A:Map position: 11p15.2-11p15.1

A:Introns: 29/2

A:Note: the first intron occurs before the initiator codon

C:Function:

A:Description: factor in homeostatic control of plasma calcium and phosphate; released b
counter to calcitonin

C:Superfamily: parathyroid hormone; parathyroid hormone homology

C:Keywords: calcium; hormone; parathyroid gland; plasma

F:1-25/Domain: signal sequence #status predicted <SIG>

F:26-31/Domain: propeptide #status experimental <PRO>

F:30-64/Domain: parathyroid hormone homology <PTH>

F:32-115/Product: parathyroid hormone #status experimental <MAT>

Query Match

Best Local Similarity 87.6%; Score 144.5; DB 1; Length 115;

Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

Qy

1 SVSEIQ-XHNXGKHLNSXERVEWLKKLQDVHNY 33

Db

32 SVSEIQLMHNIGKHLNSXERVEWLKKLQDVHNF 65

RESULT 2

PTPG

parathyroid hormone precursor - pig

C:Species: Sus scrofa domestica (domestic pig)

C:Date: 24-Apr-1984 #sequence_revision 12-Apr-1996 #text_change 09-Jul-2004

C:Accession: B26806; A90390; A90376; A01535

R:Schmelzer, H.J.; Gross, G.; Wildera, G.; Mayer, H.

Nucleic Acids Res. 15, 6740, 1987

A:Title: Nucleotide sequence of a full-length cDNA clone encoding preproparathyroid horm

A:Reference number: A26806; MUID:87316938; PMID:3628009

A:Accession: B26806

A:Status: not compared with conceptual translation

A:Molecule type: mRNA

A;Residues: 1-115 <SCH>
A;Cross-references: UNIPROT:P01269; UNIPARC:UPI000013290B; GB:X05722; GB:Y00409; NID:glb
R;Chu, L.L.H.; Huang, W.Y.; Littledike, E.T.; Hamilton, J.W.; Cohn, D.V.
Biochemistry 14, 3631-3635, 1975
A;Title: Porcine parathyroid hormone. Identification, biosynthesis, and partial amino
A;Reference number: A90390; MUID:76018954; PMID:1164500
A;Accession: A90390
A;Molecule type: protein
A;Residues: 26-115 <CHU>
A;Cross-references: UNIPARC:UPI00001592DF
R;Sauer, R.T.; Niall, H.D.; Hogan, M.L.; Keutmann, H.T.; O'Riordan, J.L.H.; Potts Jr., J.
Biochemistry 13, 1994-1999, 1974
A;Title: The amino acid sequence of porcine parathyroid hormone.
A;Reference number: A90376; MUID:7425317; PMID:4840833
A;Accession: A90376
A;Molecule type: protein
A;Residues: 32-109 <SAU>
A;Cross-references: UNIPARC:UPI00001734E0
R;Brewer Jr., H.B.; Fairwell, T.; Rittel, W.; Littledike, T.; Arnaud, C.D.
Am. J. Med. 56, 759-766, 1974
A;Title: Recent studies on the chemistry of human, bovine and porcine parathyroid hormone
A;Reference number: A90030; MUID:74173303; PMID:4598526
A;Contents: annotation
C;Superfamily: parathyroid hormone; parathyroid hormone homology
C;Keywords: calcium; hormone; parathyroid gland
F;1-25/Domain: signal sequence #status predicted <SIG>
F;26-31/Domain: propeptide #status experimental <PRO>
F;30-64/Domain: parathyroid hormone homology <PTH>
F;32-115/Product: parathyroid hormone #status experimental <MAT>
Query Match 84.5%; Score 139.5; DB 1; Length 115;
Best Local Similarity 82.4%; Pred. No. 6.4e-12;
Matches 28; Conservative 2; Mismatches 3; Indels 1; Gaps 1;
Qy 1 SVSEIQ-XHNKXGHLNSXERVEWLKQLQDVHNY 33
Db 32 SVSEIQMHNLGKHLSSLERVEWLKQLQDVHNF 65
RESULT 3
JC4202
parathyroid hormone precursor - dog
C;Species: Canis lupus familiaris (dog)
C;Date: 10-Sep-1995 #sequence_revision 27-Oct-1995 #text_change 09-Jul-2004
C;Accession: JC4202
R;Rosol, T.J.; Steimeyer, C.L.; McCauley, L.K.; Groene, A.; Dewille, J.W.; Capen, C.C.
Gene 160, 241-243, 1995
A;Title: Sequences of the cDNAs encoding canine parathyroid hormone-related protein and
A;Reference number: JC4201; MUID:95369696; PMID:7642102
A;Accession: JC4202
A;Molecule type: mRNA
A;Residues: 1-115 <ROS>
A;Cross-references: UNIPROT:P52212; UNIPARC:UPI0000132908; GB:U15662; NID:g558915; PIDN:
C;Superfamily: parathyroid hormone; parathyroid hormone homology
C;Keywords: hormone
F;1-31/Domain: signal sequence #status predicted <SIG>
F;30-64/Domain: parathyroid hormone homology <PTH>
F;32-115/Product: parathyroid hormone #status predicted <MAT>
Query Match 84.5%; Score 139.5; DB 2; Length 115;
Best Local Similarity 82.4%; Pred. No. 6.4e-12;
Matches 28; Conservative 2; Mismatches 3; Indels 1; Gaps 1;
Qy 1 SVSEIQ-XHNKXGHLNSXERVEWLKQLQDVHNY 33
Db 32 SVSEIQFMHNLGKHLSSMERVEWLKQLQDVHNF 65
RESULT 4
PTB0
parathyroid hormone precursor - bovine
C;Species: Bos primigenius taurus (cattle)
C;Date: 23-Oct-1981 #sequence_revision 23-Oct-1981 #text_change 09-Jul-2004

C;Accession: A24949; A93835; A93793; A91648; A93773; I45975; I45976; A01534
R;Weaver, C.A.; Gordon, D.F.; Kissil, M.S.; Mead, D.A.; Kemper, B.
Gene 28, 319-329, 1984
A;Title: Isolation and complete nucleotide sequence of the gene for bovine parathyroid;
A;Reference number: A24949; MUID:84262483; PMID:6086460
A;Accession: A24949
A;Molecule type: DNA
A;Residues: 1-115 <WEA>
A;Cross-references: UNIPROT:P01268; UNIPARC:UPI0000132907; GB:K01938
R;Kronenberg, H.M.; McDevitt, B.E.; Majzoub, J.A.; Nathans, J.; Sharp, P.A.; Potts Jr.,
Proc. Natl. Acad. Sci. U.S.A. 76, 4981-4985, 1979
A;Title: Cloning and nucleotide sequence of DNA coding for bovine preproparathyroid hor
A;Reference number: A93835; MUID:80056617; PMID:388425
A;Accession: A93835
A;Molecule type: DNA
A;Residues: 1-115 <KRO>
A;Cross-references: UNIPARC:UPI0000132907; GB:V00106; GB:J00023; NID:g84; PIDN:CAA23439
A;Note: the authors translated the codon GAA for residue 50 as Gly
R;Hamilton, J.W.; Niall, H.D.; Jacobs, J.W.; Keutmann, H.T.; Potts Jr., J.T.; Cohn, D.V.
Proc. Natl. Acad. Sci. U.S.A. 71, 653-656, 1974
A;Title: The N-terminal amino-acid sequence of bovine parathyroid hormone I.
A;Reference number: A91648; MUID:71076162; PMID:5531031
A;Accession: A91648
A;Molecule type: protein
A;Residues: 32-115 <NIA>
A;Cross-references: UNIPARC:UPI00000473E4
R;Brewer Jr., H.B.; Roman, R.
Proc. Natl. Acad. Sci. U.S.A. 67, 1862-1869, 1970
A;Title: Bovine parathyroid hormone: amino acid sequence.
A;Reference number: A93773; MUID:71063634; PMID:5275384
A;Accession: A93773
A;Molecule type: protein
A;Residues: 32-115 <BRE>
A;Cross-references: UNIPARC:UPI00000473E4
R;Potts Jr., J.T.; Tregear, G.W.; Keutmann, H.T.; Niall, H.D.; Sauer, R.; Defetos, L.J.;
Proc. Natl. Acad. Sci. U.S.A. 68, 63-67, 1971
A;Title: Synthesis of a biologically active N-terminal tetraoctapeptide of parathy.
A;Reference number: A93776; MUID:71091588; PMID:4322265
A;Contents: annotation; synthesis of residues 32-65
A;Note: the synthetic peptide was active in vivo and in vitro
R;Brewer Jr., H.B.; Fairwell, T.; Rittel, W.; Littledike, T.; Arnaud, C.D.
Am. J. Med. 56, 759-766, 1974
A;Title: Recent studies on the chemistry of human, bovine and porcine parathyroid hormo
A;Reference number: A90030; MUID:74173303; PMID:4598526
A;Contents: annotation
R;Weaver, C.A.; Gordon, D.F.
Proc. Natl. Acad. Sci. U.S.A. 78, 4073-4077, 1981
A;Title: introduction by molecular cloning of artifactual inverted sequences at the 5'
A;Reference number: I45975; MUID:82037785; PMID:6170060
A;Accession: I45975
A;Status: preliminary; translated from GB/EMBL/DBJ
A;Molecule type: mRNA
A;Residues: 1-115 <WE2>
A;Cross-references: UNIPARC:UPI0000132907; GB:J00024; NID:gi63642; PIDN:AAA30747.1; PID
R;Weaver, C.A.; Gordon, D.F.
Mol. Cell. Endocrinol. 28, 411-424, 1982
A;Title: Nucleotide sequence of bovine parathyroid hormone messenger RNA.
A;Reference number: I45976; MUID:83105964; PMID:6185374
A;Accession: I45976
A;Status: preliminary; translated from GB/EMBL/DBJ
A;Molecule type: mRNA
A;Residues: 1-115 <WE3>
A;Cross-references: UNIPARC:UPI0000132907; GB:M25082; NID:gi63644; PIDN:AAA30748.1; PID
C;Genetics:
A;Gene: PTH

A;Introns: 29/2
C;Superfamily: parathyroid hormone; parathyroid hormone homology
C;Keywords: hormone
F;1-25/Domain: signal sequence #status predicted <SIG>
F;26-115/Product: parathyroid hormone #status experimental <PMAT>
F;26-115/Domain: propeptide #status experimental <PRO>
F;30-64/Domain: parathyroid hormone homology <PTH>
F;32-115/Product: parathyroid hormone #status experimental <MAT>

Query Match 82.7%; Score 136.5; DB 1; Length 115;
Best Local Similarity 79.4%; Pred. No. 1.6e-11;
Matches 27; Conservative 3; Mismatches 3; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSXERVELRKKLQDVHNY 33
:||||| ||||| :||||| :||||| :||||| :||||| :||||| :
Db 32 AVSEIQFMNLGKHLSSMERVELRKKLQDVHNF 65

RESULT 5
A05091
parathyroid hormone precursor - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 05-Jun-1987 #sequence_revision 05-Jun-1987 #text_change 09-Jul-2004
C;Accession: A05091; A26806
R;Heinrich, G.; Kronenberg, H.M.; Potts Jr., J.T.; Habener, J.F.
J. Biol. Chem. 259, 3320-3329, 1984
A;Reference number: A05091; MUID:84135846; PMID:6321505
A;Accession: A05091
A;Molecule type: DNA
A;Residues: 1-115 <HEI>
A;Cross-references: UNIPROT:P04089; UNIPARC:UPI000013290C; GB:K01268; NID:g56002; PIDN:CAA291
A;Note: the authors translated the codon GAA for residue 87 as Asp
R;Schmelzer, H.J.; Gross, G.; Wiedera, G.; Mayer, H.
Nucleic Acids Res. 15, 6740, 1987
A;Title: Nucleotide sequence of a full-length cDNA clone encoding preproparathyroid hormone
A;Reference number: A26806; MUID:87316938; PMID:3628009
A;Accession: A26806
A;Status: preliminary; not compared with conceptual translation
A;Molecule type: mRNA
A;Residues: 1-115 <SCH>
A;Cross-references: UNIPARC:UPI000013290C; GB:X05721; GB:Y00409; NID:g56002; PIDN:CAA291
C;Genetics:
A;Introns: 29/3
C;Superfamily: parathyroid hormone; parathyroid hormone homology
F;30-64/Domain: parathyroid hormone homology <PTH>

Query Match 77.3%; Score 127.5; DB 2; Length 115;
Best Local Similarity 73.5%; Pred. No. 2.8e-10;
Matches 25; Conservative 4; Mismatches 4; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSXERVELRKKLQDVHNY 33
:||||| ||||| :||||| :||||| :||||| :||||| :
Db 32 AVSEIQFMNLGKHLSSMERVELRKKLQDVHNF 65

RESULT 6
I51851
parathyroid hormone - rat (fragment)
C;Species: Rattus norvegicus (Norway rat)
C;Date: 26-Jul-1996 #sequence_revision 26-Jul-1996 #text_change 16-Jul-1999
C;Accession: I51851
R;Schmelzer, H.
Adv. Gene Technol. 21, 228-229, 1984
A;Title: Nucleotide sequence of cloned cDNA encoding rat prepro parathyroid hormone.
A;Reference number: I51851
A;Accession: I51851
A;Status: preliminary; translated from GB/EMBL/DBJ
A;Molecule type: mRNA
A;Residues: 1-105 <RES>
A;Cross-references: UNIPARC:UPI0000170AE0; GB:M54875; NID:g601932; PIDN:AAA57156.1; PID:
C;Genetics:
A;Gene: PTH
C;Superfamily: parathyroid hormone; parathyroid hormone homology

F;20-54/Domain: parathyroid hormone homology <PTH>

Query Match 72.4%; Score 119.5; DB 2; Length 105;
Best Local Similarity 67.6%; Pred. No. 3.1e-09;
Matches 23; Conservative 5; Mismatches 5; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSXERVELRKKLQDVHNY 33
:||||| ||||| :||||| :||||| :||||| :||||| :
Db 22 AISBIQLMHNLGKHLASVERMQLRKKLQDVHNF 55

RESULT 7
A34937
parathyroid hormone precursor - chicken
C;Species: Gallus gallus (chicken)
C;Date: 07-Sep-1990 #sequence_revision 07-Sep-1990 #text_change 09-Jul-2004
C;Accession: A34937; I50411
R;Russell, J.; Sherwood, L.M.
Mol. Endocrinol. 3, 325-331, 1989
A;Title: Nucleotide sequence of the DNA complementary to avian (chicken) preproparathyroid hormone
A;Reference number: A34937; MUID:89219100; PMID:2710135
A;Accession: A34937
A;Molecule type: mRNA
A;Residues: 1-119 <RUS>
A;Cross-references: UNIPROT:P15743; UNIPARC:UPI0000132909; GB:M31604; NID:g212767; PIDN:
R;Khoala, S.; Demay, M.; Pines, M.; Hurwitz, S.; Potts, J.T.
J. Bone Miner. Res. 3, 689-698, 1988
A;Title: Nucleotide sequence of cloned cDNAs encoding chicken preproparathyroid hormone
A;Reference number: I50411; MUID:89284968; PMID:3251402
A;Accession: I50411
A;Status: preliminary; translated from GB/EMBL/DBJ
A;Molecule type: mRNA
A;Residues: 1-119 <KHO>
A;Cross-references: UNIPARC:UPI0000132909; GB:M36522; NID:g212591; PIDN:AAB02866.1; PID:
C;Superfamily: parathyroid hormone; parathyroid hormone homology
F;1-25/Domain: signal sequence #status predicted <SIG>
F;26-31/Domain: propeptide #status predicted <PRO>
F;30-64/Domain: parathyroid hormone homology <PTH>
F;32-119/Product: parathyroid hormone #status predicted <MAT>

Query Match 58.5%; Score 96.5; DB 2; Length 119;
Best Local Similarity 57.6%; Pred. No. 4.8e-06;
Matches 19; Conservative 7; Mismatches 6; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSXERVELRKKLQDVHNY 32
:||||| ||||| :||||| :||||| :||||| :||||| :
Db 32 SVSEQLMHNLGKHLRHTVERQDLQMKLQDVHS 64

RESULT 8
I58383
retinoblastoma binding protein 1, splice form I - human
N;Alternate names: retinoblastoma-associated protein 2 (mismomer)
N;Contains: retinoblastoma binding protein 1, splice form II
C;Species: Homo sapiens (man)
C;Date: 17-Mar-2000 #sequence_revision 17-Mar-2000 #text_change 09-Jul-2004
C;Accession: I58383; I58390; I78883; S16953; B42997
R;Fattaey, A.R.; Helin, K.; Dembski, M.S.; Dyson, N.; Harlow, E.; Vuocolo, G.A.; Hanobik
Oncogene 8, 3149-3156, 1993
A;Title: Characterization of the retinoblastoma binding proteins RBP1 and RBP2.
A;Reference number: I58383; MUID:94020841; PMID:8414517
A;Accession: I58383
A;Status: preliminary; translated from GB/EMBL/DBJ
A;Molecule type: mRNA
A;Residues: 1-1257 <FAT>
A;Cross-references: UNIPROT:P29374; UNIPARC:UPI0000036D28; GB:S66427; NID:g435775; PIDN:
R;Otterson, G.A.; Kratzke, R.A.; Lin, A.Y.; Johnston, P.G.; Kaye, F.J.
Oncogene 8, 949-957, 1993
A;Title: Alternative splicing of the RBP1 gene clusters in an internal exon that encodes
A;Reference number: I58390; MUID:93205410; PMID:8455946
A;Accession: I58390
A;Status: preliminary; translated from GB/EMBL/DBJ
A;Molecule type: mRNA

A;Residues: 338-384, 'V', 386-617, 'R', 619-652, 'V', 654-778, 'T', 780-1257 <OT72>
A;Cross-references: UNIPARC:UPI000016B3C4; GB:S57153; NID:g298681; PIDN:AAB25833.1; PID:
A;Accession: I78883
A;Status: preliminary; translated from GB/EMBL/DBJ
A;Molecule type: mRNA
A;Residues: 338-384, 'V', 386-617, 'R', 619-652, 'V', 654-778, 'T', 780-1120, 1175-1257 <OT72>
A;Cross-references: UNIPARC:UPI000016B3C5; GB:S57160; NID:g298683; PIDN:AAB25834.1; PID:
R;DeFeo-Jones, D.; Huang, P.S.; Jones, R.E.; Haskell, K.M.; Vuocolo, G.A.; Hanobik, M.G.
Nature 352, 251-254, 1991
A;Title: Cloning of cDNAs for cellular proteins that bind to the retinoblastoma gene pro
A;Reference number: S16953; MUID:91312450; PMID:1857421
A;Accession: S16953
A;Status: not compared with conceptual translation
A;Molecule type: mRNA
A;Residues: 855-1177, 'S', 1179-1195, 'SENIICL' <DEF>
A;Cross-references: UNIPARC:UPI00001740DD
R;Kaelin Jr., W.G.; Krek, W.; Sellers, W.R.; DeCaprio, J.A.; Ajchenbaum, F.; Fuchs, C.S.
Cell 70, 351-364, 1992
A;Title: Expression cloning of a cDNA encoding a retinoblastoma-binding protein with E2F
A;Reference number: A42997; MUID:92346721; PMID:1638635
A;Accession: B42997
A;Molecule type: mRNA
A;Residues: 'MMTWKL', 510-617, 'R', 619-1257 <KAE>
A;Cross-references: UNIPARC:UPI00001740DE
A;Experimental source: Akata cells
A;Note: the cited GenBank accession number, M96577, is apparently a misprint and does not
A;Note: sequence extracted from NCBI backbone (NCBIN:110020, NCBIP:110022)
C;Genetics:
A;Gene: GDB:RAP1
A;Cross-references: GDB:120340; OMIM:180260
A;Map position: 3q21-3q22
C;Superfamily: human retinoblastoma binding protein 1
C;Keywords: alternative splicing
F:1-1257/Product: retinoblastoma binding protein 1, splice form I #status predicted <SP1>
F:1-1120, 1175-1257/Product: retinoblastoma binding protein 1, splice form II #status pre
Query Match 35.8%; Score 59; DB 1; Length 1257;
Best Local Similarity 42.9%; Pred. No. 6.5;
Matches 9; Conservative 8; Mismatches 4; Indels 0; Gaps 0;
QY 13 HLNSXERVELRKQLQDVHNY 33
Db 1179 NMNSTERISFLQEKLOEIRKY 1199
RESULT 9
S28916
dystrophin - mouse
N;Alternate names: duchenne muscular dystrophy protein
C;Species: Mus musculus (house mouse)
C;Date: 22-Nov-1993 #sequence revision 03-Nov-1995 #text_change 09-Jul-2004
C;Accession: S28916; B27162; S10922; C43837; B40134
R;Bies, R.D.; Phelps, S.F.; Cortez, M.D.; Roberts, R.; Caskey, C.T.; Chamberlain, J.S.
Nucleic Acids Res. 20, 1725-1731, 1992
A;Title: Human and murine dystrophin mRNA transcripts are differentially expressed durin
A;Reference number: S28916; MUID:92253376; PMID:1579466
A;Accession: S28916
A;Status: preliminary; nucleic acid sequence not shown; translation not shown
A;Molecule type: mRNA
A;Residues: 1-3678 <BIE>
A;Cross-references: UNIPROT:P11531; UNIPARC:UPI00000279E7; EMBL:M68859
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, October 1991
R;Koenig, M.; Hoffman, E.P.; Bertelson, C.J.; Monaco, A.P.; Feener, C.; Kunkel, L.M.
Cell 50, 509-517, 1987
A;Title: Complete cloning of the Duchenne muscular dystrophy (DMD) cDNA and preliminary
A;Reference number: A90897; MUID:87273512; PMID:3607877
A;Accession: B27162
A;Status: not compared with conceptual translation
A;Molecule type: mRNA
A;Residues: 1-201 <KOE>
A;Cross-references: UNIPARC:UPI000017686
R;Nudel, U.; Zuk, D.; Binat, P.; Zeelon, E.; Levy, Z.; Neuman, S.; Yaffe, D.
Nature 337, 76-78, 1989

A;Title: Duchenne muscular dystrophy gene product is not identical in muscle and brain.
A;Reference number: S06461; MUID:89082658; PMID:2909892
A;Accession: S10922
A;Status: translation not shown
A;Molecule type: mRNA
A;Residues: 1-106 <NUD>
A;Cross-references: UNIPARC:UPI0000177687; EMBL:X14183
R;Rapaport, D.; Lederfein, D.; den Dunnen, J.T.; Grootsocholten, P.M.; Van Ommen, G.J.;
Differentiation 49, 187-193, 1992
A;Title: Characterization and cell type distribution of a novel, major transcript of th
A;Reference number: A43837; MUID:92316332; PMID:1377655
A;Accession: C43837
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 'MRHLKG', 3069-3181 <RAP>
A;Cross-references: UNIPARC:UPI0000177688
A;Note: sequence extracted from NCBI backbone
R;Hofman, E.P.; Monaco, A.P.; Feener, C.C.; Kunkel, L.M.
Science 238, 347-350, 1987
A;Title: Conservation of the Duchenne muscular dystrophy gene in mice and humans.
A;Reference number: A40134; MUID:88018015; PMID:3659917
A;Accession: B40134
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 300-676, 'F', 678-1390 <HOF>
A;Cross-references: UNIPARC:UPI0000177689; GB:M18025
C;Genetics:
A;Introns: 11/1
A;Note: the list of introns may be incomplete
C;Superfamily: dystrophin; alpha-actinin actin-binding domain homology; spectrin/dystro
C;Keywords: actin binding; alternative splicing
F:14-233/Domain: alpha-actinin actin-binding domain homology <ACT>
F:340-449/Domain: spectrin/dystrophin repeat homology <SP1>
F:450-558/Domain: spectrin/dystrophin repeat homology <SP2>
F:2797-2924/Domain: spectrin/dystrophin repeat homology <SP3>
F:3048-3085/Domain: WW repeat homology <WW1>
Query Match 35.8%; Score 59; DB 2; Length 3678;
Best Local Similarity 40.6%; Pred. No. 19;
Matches 13; Conservative 7; Mismatches 10; Indels 2; Gaps 1;
QY 1 SVSEIQXHNKXGHLNS--XERVEWLKRLQDV 30
Db 1425 SLEEMKKNQGDANQVLSQIDVAKKLQDV 1456
RESULT 10
BBHU
complement factor B precursor [validated] - human
N;Alternate names: C3 convertase; C3 proactivator; glycine-rich beta-glycoprotein; heat
N;Contains: alternative-complement-pathway C3/C5 convertase (EC 3.4.21.47) BB fragment
C;Species: Homo sapiens (man)
C;Date: 19-Feb-1984 #sequence revision 05-Aug-1994 #text change 09-Jul-2004
C;Accession: S34075; A44622; A09934; A19188; A19947; B19947; B25971; S14339; A44628; I1:
R;Mejia, J.E.; Jahn, I.; de la Salle, H.; Hauptmann, G.
submitted to the EMBL Data Library, March 1993
A;Reference number: S34075
A;Accession: S34075
A;Molecule type: mRNA
A;Residues: 1-764 <MEJ>
A;Cross-references: UNIPROT:P00751; UNIPARC:UPI000000D7F8; EMBL:X72875; NID:g297568; PTI
R;Woods, D.E.; Markham, A.F.; Ricker, A.T.; Goldberg, G.; Colten, H.R.
Proc. Natl. Acad. Sci. U.S.A. 79, 5661-5665, 1982
A;Title: Isolation of cDNA clones for the human complement protein factor B, a class II:
A;Reference number: A44622; MUID:83039428; PMID:6957884
A;Accession: A44622
A;Molecule type: mRNA
A;Residues: 467-546; 550-764 <WOO>
A;Cross-references: UNIPARC:UPI0000172BBD; UNIPARC:UPI0000172BBE; UNIPARC:UPI0000172BBF
A;Note: the authors translated the codon TAC at 519 as thr; the nucleic acid translatio
R;Mole, J.E.; Anderson, J.K.; Davison, E.A.; Woods, D.E.
J. Biol. Chem. 259, 3407-3412, 1984
A;Title: Complete primary structure for the zymogen of human complement factor B.

A;Reference number: A20751; MUID:84161997; PMID:6546754
A;Accession: A00934
A;Molecule type: protein; mRNA
A;Residues: 26-764 <MOL>
A;Cross-references: UNIPARC:UPI0000172BC0; GB:K01566
A;Note: nucleic acid translation differs from the sequence shown in having 300-Leu, 328-
A;Note: 736-Ser was also found
A;Note: glycosylation sites were determined
R;Christie, D.L.; Gagnon, J.
Biochem. J. 209, 61-70, 1983
A;Title: Amino acid sequence of the Bb fragment from complement factor B. Sequence of the
A;Reference number: A19188; MUID:83204002; PMID:6342610
A;Contents: the final paper in a series documenting the sequence, glycosylation site, and
A;Accession: A19188
A;Molecule type: protein
A;Residues: 260-296, 'T', 298-764 <CHR>
A;Cross-references: UNIPARC:UPI0000172BC1
R;Campbell, R.D.; Porter, R.R.
Proc. Natl. Acad. Sci. U.S.A. 80, 4464-4468, 1983
A;Title: Molecular cloning and characterization of the gene coding for human complement
A;Reference number: A19947; MUID:83273641; PMID:6308626
A;Accession: A19947
A;Molecule type: DNA
A;Residues: 346-764 <CM>
A;Cross-references: UNIPARC:UPI0000172BC2; GB:J00125
A;Accession: B19947
A;Molecule type: mRNA
A;Residues: 339-509 <CAL>
A;Cross-references: UNIPARC:UPI000016AD42; GB:J00126; NID:G187723; PIDN:AAA36226.1; PID:
R;Wu, L.; Morley, B.J.; Campbell, R.D.
Cell 48, 331-342, 1987
A;Title: Cell-specific expression of the human complement protein factor B gene: evidence
A;Reference number: A25971; MUID:87102880; PMID:3643061
A;Accession: B25971
A;Molecule type: DNA
A;Residues: 1-99 <WUL>
A;Cross-references: UNIPARC:UPI000016AD40; GB:M15082; NID:G187699; PIDN:AAA59625.1; PID:
R;Niemann, M.A.; BROWN, A.S.; Miller, E.J.
Biochem. J. 274, 473-480, 1991
A;Title: The principal site of glycosylation of human complement Factor B.
A;Reference number: S14339; MUID:91174758; PMID:2006911
A;Accession: S14339
A;Molecule type: protein
A;Residues: 270-329 <NLE>
A;Cross-references: UNIPARC:UPI0000172BC3
A;Note: binding site for carbohydrate to lysine under artificial conditions
R;Morley, B.J.; Campbell, R.D.
EMBO J. 3, 153-157, 1984
A;Title: Internal homologies of the Ba fragment from human complement component factor B
A;Reference number: A44628; MUID:84158524; PMID:6323161
A;Accession: A44628
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 16-225, 'F', 227-259 <MOR>
A;Cross-references: UNIPARC:UPI0000172BC4
R;Schwaible, W.; Luttig, B.; Sokolowski, T.; Estaller, C.; Weiss, E.H.; Meyer zum Busche
Immunobiology 188, 221-232, 1993
A;Title: Human complement factor B: functional properties of a recombinant zymogen of the
A;Reference number: I54409; MUID:94041399; PMID:8225386
A;Accession: I54409
A;Status: translated from GB/EMBL/DBJ
A;Molecule type: mRNA
A;Residues: 1-764 <RES>
A;Cross-references: UNIPARC:UPI000000D7F8; GB:S67310; NID:G452937; PIDN:AAID13989.1; PID:
R;Horiiuchi, T.; Kim, S.; Matsumoto, M.; Watanabe, I.; Fujita, S.; Volanakis, J.E.
Mol. Immunol. 30, 1587-1592, 1993
A;Title: Human complement factor B: cDNA cloning, nucleotide sequencing, phenotypic conve
A;Reference number: I57824; MUID:94067177; PMID:8247029
A;Accession: I57824
A;Status: translated from GB/EMBL/DBJ
A;Molecule type: mRNA
A;Residues: 1-31, 'Q', 33-764 <RE2>
A;Cross-references: UNIPARC:UPI000013E58D; GB:L15702; NID:G291921; PIDN:AAA16820.1; PID:

C;Comment: 292-Cys has a free sulfhydryl.
C;Genetics:
A;Gene: GDB:BF
A;Cross-references: GDB:119726; OMIM:138470
A;Map position: 6p21.3-6p21.3
A;Introns: 21/3; 99/3; 346/1; 390/1; 424/1; 470/1; 502/3; 542/1; 593/2; 619/1; 652/3; 69
A;Note: the list of introns may be incomplete
A;Note: gene is located in the major histocompatibility complex, class III region
C;Complex: complement factor B initially forms an inactive complex with complement facto
ment factor C3b forming active C3/C5 convertase; Ba is released
C;Function:
A;Description: Bb is a serine proteinase; C3/C5 convertase cleaves complement C3 alpha ch
ai
A;Pathway: complement alternate pathway
C;Superfamily: complement B/C2; complement factor H repeat homology; trypsin homology; v
C;Keywords: acute phase; complement alternate pathway; duplication; glycoprotein; hydroly
F;1-25/Domain: signal sequence #status predicted <SIG>
F;26-764/Product: complement factor B #status experimental <MAT>
F;26-259/Product: complement factor Ba fragment #status experimental <BAF>
F;37-98/Domain: complement factor H repeat homology <FH1>
F;103-158/Domain: complement factor H repeat homology <FH2>
F;165-218/Domain: complement factor H repeat homology <FH3>
F;260-764/Product: C3/C5 convertase Bb fragment #status experimental <BVF>
F;268-458/Domain: von Willebrand factor type A repeat homology <VFA>
F;482-752/Domain: trypsin homology #status acyclical <TRY>
F;37-76,62-98,103-145,131-158,165-205,191-218,478-596,511-527,599-615,656-682,695-725/D;I
F;122,142,285,378/Binding site: carbohydrate (Asn) (covalent) #status experimental
F;259-260/Cleavage site: Arg-Lys (complement factor D) #status experimental
F;526,576,699/Active site: His, Asp, Ser #status experimental
Query Match 33.3%; Score 55; DB 1; Length 764;
Best Local Similarity 34.6%; Pred. No. 14;
Matches 9; Conservative 7; Mismatches 10; Indels 0; Gaps 0;
QY 4 EIOXHXGKHLNSXSERVWLKQLQD 29
DB 733 QVPAHARDFHINLFQVLPLWKLQD 758
RESULT 11
T00065
hypothetical protein KIAA0442 - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 22-Jan-1999 #sequence_revision 22-Jan-1999 #text_change 09-Jul-2004
C;Accession: T00065
R;Ishikawa, K.; Nagase, T.; Nakajima, D.; Seki, N.; Chira, M.; Miyajima, N.; Tanaka, A.;
DNA Res. 4, 307-313, 1997
A;Title: Prediction of the coding sequences of unidentified human genes. VIII. 78 new CD
A;Reference number: Z14084; MUID:98116655; PMID:9455477
A;Accession: T00065
A;Status: preliminary; translated from GB/EMBL/DBJ
A;Molecule type: mRNA
A;Residues: 1-1172 <ISH>
A;Cross-references: UNIPROT:Q8WXX7; UNIPARC:UPI000017C1B0; EMBL:AB007902; NID:G2662164;
A;Experimental source: brain
C;Genetics:
A;Note: KIAA0442
Query Match 31.8%; Score 52.5; DB 2; Length 1172;
Best Local Similarity 36.1%; Pred. No. 46;
Matches 13; Conservative 5; Mismatches 13; Indels 5; Gaps 1;
QY 1 SVSEIOXHXGKHLNSXSERVWLK-----KLQDVH 31
DB 1049 SVDPREHERGGHLDREERLHMLREYETHRLSHV 1084
RESULT 12
A27605
dystrophin, muscle - human
N;Alternate names: Duchenne muscular dystrophy protein
C;Species: Homo sapiens (man)
C;Date: 19-Nov-1988 #sequence_revision 27-Jun-1994 #text_change 31-Dec-2004

A:Cross-references: UNIPARC:UPI000016A859; UNIPARC:UPI000016A861; EMBL:X15148
C:Comment: Dystrophin is proposed to play a role in anchoring the cytoskeleton to the pl
C:Genetics: Defects in dystrophin are responsible for the Duchenne/Becker muscular dystro
A:Gene: GDB:DMD
A:Cross-references: GDB:119850; OMIM:310200
A:Map position: Xp21.2-Xp21.2
A:Introns: 11/1; 31/3; 52/3; 88/3; 119/3; 177/2; 217/1; 277/3; 320/3; 383/3; 444/2; 494/
3; 3055/1; 3075/2; 3096/1; 3121/1; 3188/2; 3217/1; 3269/3; 3325/2; 3362/3; 3408/2; 3421/
A:Note: the list of introns is incomplete
C:Superfamily: alpha-actinin actin-binding domain homology; spectrin/dystrophin repeat h
C:Keywords: actin binding; alternative splicing; calmodulin binding; cytoskeleton; leuci
elix
F:14-233/Domain: alpha-actinin actin-binding domain homology <ACT>
F:253-327/Region: hinge
F:338-447/Domain: spectrin/dystrophin repeat homology <SP01>
F:448-556/Domain: spectrin/dystrophin repeat homology <SP02>
F:558-667/Domain: spectrin/dystrophin repeat homology <SP03>
F:668-717/Region: hinge
F:718-828/Domain: spectrin/dystrophin repeat homology <SP04>
F:836-934/Domain: spectrin/dystrophin repeat homology <SP05>
F:938-1045/Domain: spectrin/dystrophin repeat homology <SP06>
F:1047-1154/Domain: spectrin/dystrophin repeat homology <SP07>
F:1156-1263/Domain: spectrin/dystrophin repeat homology <SP08>
F:1265-1367/Domain: spectrin/dystrophin repeat homology <SP09>
F:1372-1477/Domain: spectrin/dystrophin repeat homology <SP10>
F:1478-1568/Domain: spectrin/dystrophin repeat homology #status atypical <SP11>
F:1570-1676/Domain: spectrin/dystrophin repeat homology <SP12>
F:1678-1782/Domain: spectrin/dystrophin repeat homology <SP13>
F:1784-1875/Domain: spectrin/dystrophin repeat homology <SP14>
F:1876-1982/Domain: spectrin/dystrophin repeat homology <SP15>
F:1984-2101/Domain: spectrin/dystrophin repeat homology <SP16>
F:2103-2208/Domain: spectrin/dystrophin repeat homology <SP17>
F:2210-2316/Domain: spectrin/dystrophin repeat homology <SP18>
F:2321-2423/Domain: spectrin/dystrophin repeat homology <SP19>
F:2424-2470/Region: hinge
F:2471-2577/Domain: spectrin/dystrophin repeat homology <SP20>
F:2579-2686/Domain: spectrin/dystrophin repeat homology <SP21>
F:2688-2802/Domain: spectrin/dystrophin repeat homology <SP22>
F:2804-2931/Domain: spectrin/dystrophin repeat homology <SP23>
F:2933-3040/Domain: spectrin/dystrophin repeat homology <SP24>
F:3041-3112/Region: hinge
F:3055-3092/Domain: WW repeat homology <WW1>
F:3080-3360/Region: cysteine-rich
F:3506-3527/Region: leucine zipper motif
F:3572-3593/Region: leucine zipper motif
Query Match 31.5%; Score 52; DB 1; Length 3685;
Best Local Similarity 37.5%; Pred. No. 1.7e+02;
Matches 12; Conservative 7; Mismatches 11; Indels 2; Gaps 1;
QY 1 SVSEIQXNKGKHL--NSXRVWLRKKLDV 30
DB 1423 SLSEMKKNGKGAQRVLSDVAKKQLQDV 1454
RESULT 13
T44470
transposase tnpD [imported] - Shigella flexneri
C:Species: Shigella flexneri
C>Date: 21-Jan-2000 #sequence_revision 21-Jan-2000 #text_change 09-Jul-2004
C:Accession: T44470
R:Moss, J.E.; Cardozo, T.J.; Zychlinsky, A.; Groisman, E.A.
Mol. Microbiol. 33, 74-83, 1999
A:Title: The selC-associated SHI-2 pathogenicity island of Shigella flexneri.
A:Reference number: Z22779; MUID:99340540; PMID:10411725
A:Accession: T44470
A:Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 1-118 <MOS>
A:Cross-references: UNIPROT:Q9XC10; UNIPARC:UPI00000BA934; EMBL:AF141323; NID:g5532445;
A:Experimental source: strain M90T; serotype 5a
C:Genetics:

A:Gene: tnpD

Query Match 30.9%; Score 51; DB 2; Length 118;
Best Local Similarity 33.3%; Pred. No. 7.5;
Matches 9; Conservative 8; Mismatches 10; Indels 0; Gaps 0;

QY 6 QXHNXGKHLNSXRVWLRKKLQDVHN 32
DB 34 QRHHPDKESARAQRDDWLKKEIQRYVD 60

RESULT 14
TQEC34

transposase - Escherichia coli insertion sequence IS3411

C:Species: Escherichia coli

C>Date: 31-Mar-1989 #sequence_revision 31-Mar-1989 #text_change 09-Jul-2004

C:Accession: A27744

R:ishiguro, N.; Sato, G.

J. Bacteriol. 170, 1902-1906, 1988

A:Title: Nucleotide sequence of insertion sequence IS3411, which flanks the citrate util

A:Reference number: A27744; MUID:88169522; PMID:2832386

A:Accession: A27744

A:Molecule type: DNA

A:Residues: 1-240 <ISH>

A:Cross-references: UNIPROT:P11257; UNIPARC:UPI000013682C; GB:M19532; NID:g154871; PIDN

A:Experimental source: strain K12

C:Genetics:

A:Mobile element: insertion sequence IS

C:Superfamily: transposase IS3

C:Keywords: DNA binding; DNA replication

Query Match 30.9%; Score 51; DB 1; Length 240;
Best Local Similarity 33.3%; Pred. No. 15;
Matches 9; Conservative 8; Mismatches 10; Indels 0; Gaps 0;

QY 6 QXHNXGKHLNSXRVWLRKKLQDVHN 32
DB 34 QRHHPDKRSARAQRDDWLKKEIQRYVD 60

RESULT 15
S09261

probable transposase B - Shigella sonnei insertion sequence IS629

C:Species: Shigella sonnei

C>Date: 29-Jan-1993 #sequence_revision 29-Jan-1993 #text_change 09-Jul-2004

C:Accession: S09261; S03414

R:Matsutani, S.; Ohtsubo, E.

Nucleic Acids Res. 18, 1899, 1990

A:Title: Complete sequence of IS629.

A:Reference number: S09260; MUID:90245593; PMID:2159625

A:Accession: S09261

A:Molecule type: DNA

A:Residues: 1-296 <MAT>

A:Cross-references: UNIPROT:P16942; UNIPARC:UPI0000136842; EMBL:X51586; NID:g47538; PIDN

R:Matsutani, S.; Ohtsubo, H.; Maeda, Y.; Ohtsubo, E.

J. Mol. Biol. 196, 445-455, 1987

A:Title: Isolation and characterization of IS elements repeated in the bacterial chromos

A:Reference number: S03411; MUID:88062685; PMID:2824781

A:Accession: S03414

A:Molecule type: DNA

A:Residues: 2-26; 208-296 <MAY>

A:Cross-references: UNIPARC:UPI000017834C; UNIPARC:UPI000017834D; EMBL:X05953

C:Genetics:

A:Mobile element: insertion sequence IS629

C:Superfamily: transposase IS3

C:Keywords: DNA binding

Query Match 30.9%; Score 51; DB 2; Length 296;
Best Local Similarity 33.3%; Pred. No. 19;
Matches 9; Conservative 8; Mismatches 10; Indels 0; Gaps 0;

QY 6 QXHNXGKHLNSXRVWLRKKLQDVHN 32
DB 34 QRHHPDKESARAQRDDWLKKEIQRYVD 60

A:Gene: ECs1902
C:Superfamily: transcriptional regulator of TyrR type with ACT, PAS, AAA, and Fis domain

Query Match 30.3%; Score 50; DB 2; Length 513;
Best Local Similarity 25.8%; Pred. No. 45;
Matches 8; Conservative 7; Mismatches 16; Indels 0; Gaps 0;

QY 2 VSEIQHNKXGHLNSXERVEWLKKLQDVHN 32
Db 117 LDRLRNHTAAQLNGFNFLWLESPQDSHN 147

RESULT 20
C85752
hypothetical protein tyrR [imported] - Escherichia coli (strain O157:H7, substrain EDL933)
C:Species: Escherichia coli
C:Date: 16-Feb-2001 #sequence_revision 16-Feb-2001 #text_change 09-Jul-2004
C:Accession: C85752
R:Perne, N.T.; Plunkett III, G.; Burland, V.; Mau, B.; Glasner, J.D.; Rose, D.J.; Mayhew
iller, L.; Grotbeck, E.J.; Davis, N.W.; Lim, A.; Dimalanta, E.; Potamousis, K.; Apodaca,
Nature 409, 529-533, 2001
A:Title: Genome sequence of enterohemorrhagic Escherichia coli O157:H7.
A:Reference number: A85480; MUID:21074935; PMID:11206551
A:Accession: C85752
A:Status: preliminary
A:Molecule type: DNA
A:Residues: 1-513 <STO>
A:Cross-references: UNIPROT:O9LA28; UNIPARC:UPI00001657D1; GB:AE005174; NID:G12515443; E
A:Experimental source: strain O157:H7, substrain EDL933
C:Genetics:
A:Gene: tyrR
C:Superfamily: transcriptional regulator of TyrR type with ACT, PAS, AAA, and Fis domain

Query Match 30.3%; Score 50; DB 2; Length 513;
Best Local Similarity 25.8%; Pred. No. 45;
Matches 8; Conservative 7; Mismatches 16; Indels 0; Gaps 0;

QY 2 VSEIQHNKXGHLNSXERVEWLKKLQDVHN 32
Db 117 LDRLRNHTAAQLNGFNFLWLESPQDSHN 147

RESULT 21
C84854
hypothetical protein At2g42470 [imported] - Arabidopsis thaliana
C:Species: Arabidopsis thaliana (mouse-ear cross)
C:Date: 02-Feb-2001 #sequence_revision 02-Feb-2001 #text_change 09-Jul-2004
C:Accession: C84854
R:Lin, X.; Kaul, S.; Rounsley, S.D.; Shea, T.P.; Benito, M.I.; Town, C.D.; Fujii, C.Y.;
Moo, H.; Moffat, K.S.; Cronin, L.A.; Shen, M.; Vanaken, S.E.; Umayam, L.; Tallon, L.
eaus, D.; Nierman, W.C.; White, O.; Eisen, J.A.; Salzberg, S.B.; Fraser, C.M.; Venter, J.
Nature 402, 763-768, 1999
A:Title: Sequence and analysis of chromosome 2 of the plant Arabidopsis thaliana.
A:Reference number: A84420; MUID:20083487; PMID:10617197
A:Accession: C84854
A:Status: preliminary
A:Molecule type: DNA
A:Residues: 1-898 <STO>
A:Cross-references: UNIPROT:Q9SLB3; UNIPARC:UPI000009C574; GB:AE002093; NID:g4567317; PT
C:Genetics:
A:Gene: At2g42470
A:Map position: 2

```

Query Match          30.3%; Score 50; DB 2; Length 898;
Best Local Similarity 35.3%; Pred. No. 78;
Matches 12; Conservative 5; Mismatches 13; Indels 4; Gaps 1;

QY      1 SYSEIQHNKXGKHLNSXERY-----EWLRKKQDV 30
      |||:|:| | | | | | | | | | | | | | |
Db      706 SISETLSNVHSELTTELTEVGFKEWLKAKLEEV 739

RESULT 22

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A44159

spectrin beta-G chain - human

N/Alternate names: beta-spectrin general isoform, beta G-spectrin

C/Species: Homo sapiens (man)

C/Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004

C/Accession: A44159

R/Hu, R.J.; Watanabe, M.; Bennett, V.

J. Biol. Chem. 267, 18715-18722, 1992

A/Title: Characterization of human brain cDNA encoding the general isoform of beta-spectrin

A/Reference number: A44159; MUID:92406787; PMID:1527002

A/Accession: A44159

A/Status: nucleic acid sequence not shown

A/Molecule type: mRNA

A/Residues: 1-2364 <HUI>

A/Cross-references: UNIPROT:Q01082; UNIPARC:UPI000004EC67; GB:M96803; NID:g3384442; PIDN

A/Experimental source: brain

A/Note: sequence extracted from NCBI backbone (NCBIP:113399)

C/Genetics:

A/Gene: GDB:SPTBN1

A/Cross-references: GDB:120386; OMIM:182790

A/Map position: 2p21-2p21

C/Superfamily: spectrin beta-G chain; alpha-actinin actin-binding domain homology; pleck

C/Keywords: actin binding; cytoskeleton; duplication; heterodimer; membrane protein

F:301-412/Domain: alpha-actinin actin-binding domain homology <ACT>

F:1697-1803/Domain: spectrin/dystrophin repeat homology <SP1>

F:2196-2305/Domain: spectrin/dystrophin repeat homology <SP2>

F:2196-2305/Domain: pleckstrin repeat homology <PLK>

Query Match 30.0%; Score 49.5; DB 1; Length 2364;

Best Local Similarity 46.7%; Pred. No. 2.4e+02;

Matches 14; Conservative 3; Mismatches 10; Indels 3; Gaps 1;

QY 3 SEIQHNKGKHLNSXERVEWLRKQLQDVHN 32

Db 1401 SQIQSDDYGKHLTS---VNILLKQOMLEN 1427

RESULT 23

T09450

virulence-associated protein D - Helicobacter pylori (strain 60190)

C/Species: Helicobacter pylori

C/Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 09-Jul-2004

C/Accession: T09450

R/Cao, P.; Cover, T.L.

J. Bacteriol. 179, 2852-2856, 1997

A/Title: High-level genetic diversity in the vapD chromosomal region of Helicobacter pyl

A/Reference number: Z16675; MUID:97284485; PMID:9139899

A/Accession: T09450

A/Status: preliminary; translated from GB/EMBL/DBJ

A/Molecule type: DNA

A/Residues: 1-94 <CAO>

A/Cross-references: UNIPROT:O05728; UNIPARC:UPI000016F804; EMBL:U94318; NID:g2072451; PI

A/Gene: vapp

C/Superfamily: virulence-associated protein vapp

C/Keywords: virulence

```

Query Match      29.7%;   Score 49;   DB 2;   Length 94;
Best Local Similarity 27.3%;   Pred. No. 11;
Matches 6;   Conservative 8;   Mismatches 8;   Indels 0;   Gaps 0;

Qy      12  KHLNSXRVVWLRRKKLQDVHNY 33
      | : | : | : | : | : | :
Db      59  KAINKLSQIEWFKSVRDIRAF 80

RESULT 24
C64559
virulence associated protein D - Helicobacter pylori (strain 26695)
C;Species: Helicobacter pylori
C;Date: 09-Aug-1997 #sequence_revision 09-Aug-1997 #text_change 09-Jul-2004
C;Accession: C64559
R;Tomb, J.F.; White, O.; Kervatage, A.R.; Clayton, R.A.; Sutton, G.G.; Fleischmann, R.D.

```


A:Title: Genome sequence of enterohemorrhagic Escherichia coli O157:H7.
A:Reference number: A85480; MUID:21074935; PMID:11206551
A:Accession: E85661
A:Status: preliminary
A:Molecule type: DNA
A:Residues: 1-295 <STO>
A:Cross-references: UNIPROT:Q8X4W7; UNIPARC:UPI0000165734; GB:AE005174; NID:gl2514527; F
A:Experimental source: strain O157:H7, substrain EDL933
A:Accession: C85610
A:Status: preliminary
A:Molecule type: DNA
A:Residues: 1-295 <ST2>
A:Cross-references: UNIPARC:UPI0000165734; GB:AE005174; NID:gl2514009; PIDN:AGS55343.1;
A:Experimental source: strain O157:H7, substrain EDL933
C:Genetics:
A:Gene: Z1638; Z1198
C:Superfamily: transposase IS3

Query Match 29.1%; Score 48; DB 2; Length 295;
Best Local Similarity 29.6%; Pred. No. 48;
Matches 8; Conservative 9; Mismatches 10; Indels 0; Gaps 0;
QY 6 QXHNKGKHLNSXRVWLRKLDQVHN 32
Db 33 QRHPDKRSARQDDWLKREIQRVYD 59

RESULT 39
T05866
hypothetical protein T29A15.100 - Arabidopsis thaliana
C:Species: Arabidopsis thaliana (mouse-ear cress)
C:Date: 23-Apr-1999 #sequence_revision 23-Apr-1999 #text_change 09-Jul-2004
C:Accession: T05866
R:Bevan, M.; Van Der Schueren, J.; Chuang, Y.J.; Voet, M.; Robben, J.; Volckaert, G.; Ho
submitted to the Protein Sequence Database, March 1999
A:Reference number: Z15455
A:Accession: T05866
A:Molecule type: DNA
A:Residues: 1-299 <BEV>
A:Cross-references: UNIPROT:Q9T085; UNIPARC:UPI00000A51C1; EMBL:AL035602
A:Experimental source: cultivar Columbia; BAC clone T29A15
C:Genetics:
A:Map position: 4
A:Introns: 62/1
A:Note: T29A15.100

Query Match 29.1%; Score 48; DB 2; Length 299;
Best Local Similarity 39.3%; Pred. No. 49;
Matches 11; Conservative 5; Mismatches 12; Indels 0; Gaps 0;
QY 3 SEIQHNKGKHLNSXRVWLRKLDQV 30
Db 232 SESNYEQBSLRDGERVWLRKEVSEL 259

RESULT 40
E69733
PSX prophage ORF xkdV - Bacillus subtilis
C:Species: Bacillus subtilis
C:Date: 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 09-Jul-2004
C:Accession: E69733
R:Kunat, F.; Ogasawara, N.; Moszer, I.; Albertini, A.M.; Alloni, G.; Azevedo, V.; Berte
C.; Bron, S.; Brouillet, S.; Bruschi, C.V.; Caldwell, B.; Capuano, V.; Carter, N.M.; Ch
A.; Ehrlich, S.D.; Emerson, P.C.; Encian, K.D.; Errington, J.; Fabret, C.; Ferrari, E.
Nature 330, 249-256, 1997
A:Authors: Foulger, D.; Fritz, C.; Fujita, M.; Fujita, Y.; Fuma, S.; Galizzi, A.; Gall
iech, J.; Harwood, C.R.; Henaut, A.; Hilbert, H.; Holsappel, S.; Hosono, S.; Hullo, M.F.
Koetter, P.; Koningsstein, G.; Krogh, S.; Kumano, M.; Kurita, K.; Lapidus, A.; Lardinois,
A:Authors: Lauber, J.; Lazarevic, V.; Lee, S.M.; Levine, A.; Liu, H.; Masuda, S.; Maueel
Y. M.; Ogawa, K.; Ogiwara, A.; Oudega, B.; Park, S.H.; Parro, V.; Pohl, T.M.; Portetelle
Rieger, M.; Rivolta, C.; Rocha, E.; Roche, B.; Rose, M.; Sadaie, Y.; Sato, T.; Scanlon,
A:Authors: Schleich, S.; Schroeter, R.; Scoffone, F.; Sekiguchi, J.; Sekowska, A.; Seron
akeuchi, M.; Tamakoshi, A.; Tanaka, T.; Terpatra, P.; Tognoni, A.; Tosato, V.; Uchiyama,

T.; Winters, P.; Wipat, A.; Yamamoto, H.; Yamane, K.; Yasumoto, K.; Yata, K.; Yoshida, K.
A:Authors: Yoshikawa, H.P.; Zumstein, E.; Yoshikawa, H.; Danchin, A.
A:Title: The complete genome sequence of the Gram-positive bacterium Bacillus subtilis.
A:Reference number: A69580; MUID:98044033; PMID:9384377
A:Accession: E69733
A:Status: preliminary; nucleic acid sequence not shown; translation not shown
A:Molecule type: DNA
A:Residues: 1-687 <KUN>
A:Cross-references: UNIPROT:P54341; UNIPARC:UPI000006028B; GB:Z99110; GB:AL009126; NID:9
A:Experimental source: strain 168
C:Genetics:
A:Gene: xkdV

Query Match 29.1%; Score 48; DB 2; Length 687;
Best Local Similarity 39.3%; Pred. No. 1.1e+02;
Matches 11; Conservative 4; Mismatches 11; Indels 2; Gaps 1;
QY 1 SVSEIQHN--XGKHLNSXRVWLRKK 26
Db 64 SKTEFNEHNDSTRHITSVERDEWNAKE 91

Search completed: January 28, 2006, 01:16:43
Job time : 42 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: January 28, 2006, 01:06:47 ; Search time 162 Seconds
(without alignments)
143.719 Million cell updates/sec

Title: US-09-674-597A-16
Perfect score: 165
Sequence: 1 SVSEIQXHXKGLNSXERVEWLKQLQDVHNY 33

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2166443 seqs, 705528306 residues

Total number of hits satisfying chosen parameters: 2166443

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 100 summaries

Database : Uniprot_05.80.*
1: uniprot_sprot.*
2: uniprot_trembl.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	144.5	87.6	86	Q9N1V0	equus caball
2	144.5	87.6	115	PTHY_HUMAN	
3	144.5	87.6	115	PTHY_MACFA	
4	144.5	87.6	115	Q4VB48	macaca fasc
5	139.5	84.5	115	PTHY_CANFA	canis famli
6	139.5	84.5	115	PTHY_PIG	
7	136.5	82.7	115	PTHY_BOVIN	
8	136.5	82.7	115	PTHY_FELCA	
9	127.5	77.3	105	Q80WZ2	rattus norv
10	127.5	77.3	115	PTHY_RAT	
11	121.5	73.6	115	Q9Z0L6	mus muscullu
12	96.5	58.5	119	PTHY_CHICK	
13	71.5	43.3	91	Q6W9J4	gallus gall
14	65.5	39.7	102	Q5TLZ1	fugu rubrip
15	65.5	39.7	102	Q6WQ25	brachydanio
16	62.5	37.9	99	Q6WQ24	brachydanio
17	62	37.6	1449	Q4RPY8	tetraodon n
18	60.5	36.7	163	Q918E9	fugu rubrip
19	60.5	36.7	391	Q51GF8	entamoeba h
20	59	35.8	15	CB30	HYDMC
21	59	35.8	140	Q8BVA2	mus muscullu
22	59	35.8	926	Q60KX2	caenorhabdi
23	59	35.8	1257	ARI4A	HUMAN
24	59	35.8	3678	DMD_MOUSE	
25	58.5	35.5	166	Q6H9R6	PLAFE
26	58.5	35.5	166	Q53IQ0	PLAFE
27	57.5	34.8	162	Q918U2	SPAAU
28	57	34.5	143	Q5H3Y0	xanthomonas
29	56.5	34.2	107	Q4TG14	TETNG
30	56	33.9	193	Q8W2V7	oryza sativ
31	55	33.3	764	CFAB_GORGO	gorilla gor

32	55	33.3	764	1	CFAB_HUMAN	P00751	homo sapien
33	55	33.3	764	1	CFAB_PANTR	Q864W0	pan troglod
34	55	33.3	764	1	CFAB_PONPY	Q864W1	pongo pygma
35	55	33.3	764	2	Q5JF89_HUMAN	Q5JF89	homo sapien
36	55	33.3	764	2	Q5JP67_HUMAN	Q5JP67	homo sapien
37	55	33.3	764	2	Q5ST50_HUMAN	Q5ST50	homo sapien
38	54	32.7	118	2	Q8J3Q3_SHIFL	Q8J3Q3	shigella fl
39	54	32.7	323	2	Q7R8J7_PLAYO	Q7R8J7	plasmodium
40	54	32.7	1252	2	Q5Z1S6_CHICK	Q5Z1S6	gallus gall
41	53.5	32.4	31	2	Q91Y90_PERMA	Q91Y90	peromyscus
42	53.5	32.4	31	2	Q91Y91_PERPL	Q91Y91	peromyscus
43	53.5	32.4	177	2	Q4RSF3_TETNG	Q4RSF3	tetraodon n
44	53.5	32.4	4007	2	Q4SZ57_TETNG	Q4SZ57	tetraodon n
45	53	32.1	394	2	Q4UHV5_THEAN	Q4UHV5	theileria a
46	53	32.1	831	2	Q7TUQ4_PROMM	Q7TUQ4	procholoroco
47	53	32.1	1245	2	Q962K7_PLAVI	Q962K7	plasmodium
48	53	32.1	3119	2	Q8IHM0_PLAF7	Q8IHM0	plasmodium
49	52.5	31.8	198	2	Q5SPK3_BRARE	Q5SPK3	brachydanio
50	52.5	31.8	198	2	Q4VVA3_BRARE	Q4VVA3	brachydanio
51	52.5	31.8	1011	2	Q7SMD7_HUMAN	Q7SMD7	homo sapien
52	52.5	31.8	1235	2	Q5D049_HUMAN	Q5D049	homo sapien
53	52.5	31.8	1259	1	AUTS2_HUMAN	Q8WXX7	homo sapien
54	52	31.5	182	2	Q8I996_PLAFA	Q8I996	plasmodium
55	52	31.5	367	2	Q8TJM4_METAP	Q8TJM4	methanosarc
56	52	31.5	394	2	Q4N7Q5_THEPA	Q4N7Q5	theileria p
57	52	31.5	449	2	Q8N2Q8_HUMAN	Q8N2Q8	homo sapien
58	52	31.5	730	2	Q7SDF6_NEUCR	Q7SDF6	neurospora
59	52	31.5	734	2	Q4IQZ0_GIBZE	Q4IQZ0	gibberella
60	52	31.5	3680	1	DMD_CANFA	Q97592	canis famli
61	52	31.5	3685	1	DMD_HUMAN	P11332	homo sapien
62	52	31.5	3685	2	Q7KZ48_HUMAN	Q7KZ48	homo sapien
63	52	31.5	3685	2	Q5JYU0_HUMAN	Q5JYU0	homo sapien
64	51.5	31.2	130	2	Q70327_MESAU	Q70327	mesocricetu
65	51.5	31.2	160	2	Q923T1_SIGHI	Q923T1	sigmodon hi
66	51.5	31.2	324	2	Q4TQC7_9SPHN	Q4TQC7	erythrobact
67	51.5	31.2	908	2	Q7XEL3_ORYSA	Q7XEL3	oryza sativ
68	51	30.9	105	2	Q9AFQ0_SHIFL	Q9AFQ0	shigella fl
69	51	30.9	117	2	Q9RP29_SHIFL	Q9RP29	shigella fl
70	51	30.9	117	2	Q9Q21_SHIFL	Q9Q21	shigella fl
71	51	30.9	118	2	Q9AFX1_SHIFL	Q9AFX1	shigella fl
72	51	30.9	118	2	Q9XC10_SHIFL	Q9XC10	shigella fl
73	51	30.9	118	2	Q6GZJ9_ECOLI	Q6GZJ9	escherichia
74	51	30.9	118	2	Q87509_ECOLI	Q87509	escherichia
75	51	30.9	118	2	Q8FDY4_ECOL6	Q8FDY4	escherichia
76	51	30.9	118	2	Q83KQ0_SHIFL	Q83KQ0	shigella fl
77	51	30.9	200	2	Q51JQ3_MAGGR	Q51JQ3	magnaporthe
78	51	30.9	208	2	Q51K15_MAGGR	Q51K15	magnaporthe
79	51	30.9	216	2	Q5L815_BACFN	Q5L815	bacteroides
80	51	30.9	216	2	Q64N96_BACFR	Q64N96	bacteroides
81	51	30.9	222	2	Q52E75_MAGGR	Q52E75	magnaporthe
82	51	30.9	225	2	Q8CXV7_ECOL6	Q8CXV7	escherichia
83	51	30.9	229	2	Q51S59_MAGGR	Q51S59	magnaporthe
84	51	30.9	240	1	T341_ECOLI	P11357	escherichia
85	51	30.9	295	2	Q7UD38_SHIFL	Q7UD38	shigella fl
86	51	30.9	295	2	Q4FBE2_ECOLI	Q4FBE2	escherichia
87	51	30.9	295	2	Q6H9S3_9CAUD	Q6H9S3	phage phi 4
88	51	30.9	296	1	T629_SHISO	P16942	shigella so
89	51	30.9	296	2	Q51QA0_SHIBO	Q51QA0	shigella bo
90	51	30.9	296	2	Q6SSJ4_SHIDY	Q6SSJ4	shigella dy
91	51	30.9	296	2	Q8VR52_ECOLI	Q8VR52	escherichia
92	51	30.9	296	2	Q8CXV4_ECOL6	Q8CXV4	escherichia
93	51	30.9	296	2	Q8CM76_ECOL6	Q8CM76	escherichia
94	51	30.9	323	2	Q7VE14_PROMA	Q7VE14	procholoroco
95	51	30.9	374	2	Q8PZ45_METMA	Q8PZ45	methanosarc
96	51	30.9	512	2	Q7P249_CHRVO	Q7P249	chromobacte
97	51	30.9	526	2	Q649R7_9ARCH	Q649R7	uncultured
98	51	30.9	602	2	Q66UC5_9DIPT	Q66UC5	culicoides
99	51	30.9	722	2	Q52GP2_MAGGR	Q52GP2	magnaporthe
100	51	30.9	901	2	Q5B9P1_EMENI	Q5B9P1	aspergillus

ALIGNMENTS

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RESULT 1
Q9N1V0_HORSE
ID Q9N1V0_HORSE PRELIMINARY; PRT; 86 AA.
AC Q9N1V0;
DT 01-OCT-2000 (TrEMBLrel. 15, Created)
DT 01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Parathyroid hormone (Fragment).
GN Name:PTH;
OS Equus caballus (Horse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Perissodactyla; Equidae; Equus.
OX NCBI_TaxID=9796;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=20082971; PubMed=10613847; DOI=10.1101/gr.9.12.1239;
RA Caetano A.R., Shive Y.L., Lyons L.A., O'Brien S.J., Laughlin T.F.,
RA Bowling A.T., Murray J.D.;
RT "A comparative gene map of the horse (Equus caballus).";
RL Genome Res. 9:1239-1249(1999).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RA Shive Y.-L., Caetano A.R., Lyons L.A., O'Brien S.J., Laughlin T.F.,
RA Murray J.D., Bowling A.T.;
RL Submitted (MAR-1999) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF134233; AAF62347.1; -; Genomic_DNA.
DR HSP; P01270; 1ET1.
DR GO; GO:0008576; C:extracellular region; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR InterPro; IPR001415; Parathyroid_hrm.
DR InterPro; IPR003625; Pthyrohm_sub.
DR PANTHER; PTHR10541; Pthyrohm_sub; 1.
DR Pfam; PF01279; Parathyroid; 1.
DR ProDom; PD010697; Pthyrohm_sub; 1.
DR SMART; SM00087; PTH; 1.
DR PROSITE; PS00335; PARATHYROID; 1.
FT NON_TER
SQ SEQUENCE 86 AA; 9805 MW; 253184EA681A2022 CRC64;

Query Match 87.6%; Score 144.5; DB 2; Length 86;
Best Local Similarity 85.3%; Pred. No. 5.4e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

QY 1 SYSEIQ-QXNKGKHLNSXERVWLKKLQDVHNY 33
      ||||| || ||||| ||||| ||||| ||||| |||||
Db 3 SYSEIQMLNKGKHLNSXERVWLKKLQDVHNP 36

RESULT 2
PTHY HUMAN
ID PTHY HUMAN STANDARD; PRT; 115 AA.
AC P01370;
DT 21-JUL-1986 (Rel. 01, Created)
DT 13-AUG-1987 (Rel. 05, Last sequence update)
DT 13-SEP-2005 (Rel. 48, Last annotation update)
DE Parathyroid hormone precursor (Parathyrin) (PTH) (Parathormone).
GN Name:PTH;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OX NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=82150870; PubMed=6950381;
RA Hendy G.N., Kronenberg H.M., Potts J.T. Jr., Rich A.;
RT "Nucleotide sequence of cloned cDNAs encoding human preproparathyroid hormone.";
RL Proc. Natl. Acad. Sci. U.S.A. 78:7365-7369(1981).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=83169834; PubMed=6220408;
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RA Vasicek T.J., McCevitt B.E., Freeman M.W., Fennick B.J., Hendy G.N.,
RA Potts J.T. Jr., Rich A., Kronenberg H.M.;
RT "Nucleotide sequence of the human parathyroid hormone gene.";
RL Proc. Natl. Acad. Sci. U.S.A. 80:2127-2131(1983).
RN [3]
RP PROTEIN SEQUENCE OF 26-37.
RX MEDLINE=74174967; PubMed=4833516;
RA Jacobs J.W., Kemper B., Niall H.D., Habener J.F., Potts J.T. Jr.;
RT "Structural analysis of human parathyroid hormone by a new
RT microsequencing approach.";
RL Nature 249:155-157(1974).
RN [4]
RP PROTEIN SEQUENCE OF 26-40.
RX PubMed=15340161; DOI=10.1110/ps.04682504;
RA Zhang Z., Henzel W.J.;
RT "Signal peptide prediction based on analysis of experimentally
RT verified cleavage sites.";
RL Protein Sci. 13:2819-2824(2004).
RN [5]
RP PROTEIN SEQUENCE OF 32-68.
RX MEDLINE=74111656; PubMed=4521809;
RA Niall H.D., Sauer R.T., Jacobs J.W., Keutmann H.T., Segre G.V.,
RA O'Riordan J.L.H., Aurbach G.D., Potts J.T. Jr.;
RT "The amino-acid sequence of the amino-terminal 37 residues of human
RT parathyroid hormone.";
RL Proc. Natl. Acad. Sci. U.S.A. 71:384-388(1974).
RN [6]
RP PROTEIN SEQUENCE OF 61-83 AND 84-115.
RX MEDLINE=79082855; PubMed=728431;
RA Keutmann H.T., Sauer M.M., Hendy G.N., O'Riordan J.L.H.,
RA Potts J.T. Jr.;
RT "Complete amino acid sequence of human parathyroid hormone.";
RL Biochemistry 17:5723-5729(1978).
RN [7]
RP PROTEIN SEQUENCE OF 75-100.
RA Keutmann H.T., Niall H.D., Jacobs J.W., Barling P.M., Hendy G.N.,
RA O'Riordan J.L.H., Potts J.T. Jr.;
RL (In) Talmadge R.V., Owen M., Parsons J.A. (eds.);
RL Calcium-regulating hormones, pp.9-14, Excerpta Medica Foundation,
RL Amsterdam (1975).
RN [8]
RP SEQUENCE REVISION.
RX MEDLINE=75146516; PubMed=1125201;
RA Keutmann H.T., Niall H.D., O'Riordan J.L.H., Potts J.T. Jr.;
RT "A reinvestigation of the amino-terminal sequence of human parathyroid
RT hormone.";
RL Biochemistry 14:1842-1847(1975).
RN [9]
RP SYNTHESIS OF 32-65.
RX MEDLINE=75059220; PubMed=4474131;
RA Tregear G.W., van Rietschoten J., Green E., Niall H.D., Keutmann H.T.,
RA Parsons J.A., O'Riordan J.L.H., Potts J.T. Jr.;
RT "Solid-phase synthesis of the biologically active N-terminal 1-34
RT peptide of human parathyroid hormone.";
RL Hoppe-Seyler's Z. Physiol. Chem. 355:415-421(1974).
RN [10]
RP SYNTHESIS OF 32-65.
RX MEDLINE=73227467; PubMed=4721748;
RA Andreatta R.H., Hartmann A., Joehl A., Kamber B., Maier R.,
RA Riniker B., Rittel W., Sieber P.;
RT "Synthesis of sequence 1-34 of human parathyroid hormone.";
RL Helv. Chim. Acta 56:470-473(1973).
RN [11]
RP STRUCTURE BY NMR OF 32-65.
RX MEDLINE=91299748; PubMed=2069952;
RA Klaus W., Dieckmann T., Wray V., Schomburg D., Wingender E., Mayer H.;
RT "Investigation of the solution structure of the human parathyroid
RT hormone fragment (1-34) by 1H NMR spectroscopy, distance geometry, and
RT molecular dynamics calculations.";
RL Biochemistry 30:6936-6942(1991).
RN [12]
RP STRUCTURE BY NMR OF 32-65.
RX MEDLINE=93345518; PubMed=8344299;
```

RA Barden J.A., Cuthbertson R.M.;
RT "Stabilized NMR structure of human parathyroid hormone (1-34).";
RL Eur. J. Biochem. 215:315-321(1993).
RN [13]
RP STRUCTURE BY NMR OF 32-68.
RX MEDLINE=95318084; PubMed=7797503; DOI=10.1074/jbc.270.25.15194;
RA Marx U.C., Adermann K., Bayer P., Adermann K., Eichart A.,
RA Sticht H., Walter S., Schmid F.-X., Jaenicke R., Forssmann W.-G.,
RA Roesch P.;
RT "Structure of human parathyroid hormone 1-37 in solution.";
RL J. Biol. Chem. 270:15194-15202(1995).
RN [14]
RP STRUCTURE BY NMR OF 32-70.
RX MEDLINE=20090619; PubMed=10623601; DOI=10.1006/bbrc.1999.1958;
RA Marx U.C., Adermann K., Bayer P., Forssmann W.-G., Roesch P.;
RT "Solution structures of human parathyroid hormone fragments hPTH(1-34)
and hPTH(1-39) and bovine parathyroid hormone fragment bPTH(1-37).";
RL Biochem. Biophys. Res. Commun. 267:213-220(2000).
RN [15]
RP VARIANT FIH ARG-18.
RX MEDLINE=91009811; PubMed=2212001;
RA Arnold A., Horst S.A., Gardella T.J., Baba H., Levine M.A.,
RA Kronenberg H.M.;
RT "Mutation of the signal peptide-encoding region of the
preparathyroid hormone gene in familial isolated
hypoparathyroidism.";
RL J. Clin. Invest. 86:1084-1087(1990).
RN [16]
RP VARIANT FIH PRO-23.
RX PubMed=10523031;
RA Sunthornthepvarakul T., Churesigaew S., Ngongarmratana S.;
RT "A novel mutation of the signal peptide of the preproparathyroid
hormone gene associated with autosomal recessive familial isolated
hypoparathyroidism.";
RL J. Clin. Endocrinol. Metab. 84:3792-3796(1999).
RN [17]
RP FUNCTION: PTH elevates calcium level by dissolving the salts in
bone and preventing their renal excretion.
CC -!- DISEASE: Defects in PTH are a cause of familial isolated
hypoparathyroidism (FIH) [MIM:146200]. FIH exist both as autosomal
dominant and recessive forms of hypoparathyroidism.
CC -!- SIMILARITY: Belongs to the parathyroid hormone family.
CC
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the European Bioinformatics Institute. There are no restrictions on its
use as long as its content is in no way modified and this statement is not
removed.
CC
CC EMBL; J00301; AAA60215.1; -; Genomic_DNA.
CC EMBL; V00597; CAA23843.1; -; mRNA.
CC EMBL; A29146; CAA01956.1; -; Unassigned_DNA.
CC
CC PIR; A19339; PTHU.
CC PDB; 1BWV; NMR; @=32-70.
CC PDB; 1ET1; X-ray; A/B=32-65.
CC PDB; 1ET2; Model; A=32-65.
CC PDB; 1FVY; NMR; A=32-62.
CC PDB; 1HPH; NMR; @=32-68.
CC PDB; 1HPY; NMR; @=32-65.
CC PDB; 1HTH; NMR; @=32-65.
CC PDB; 1ZWA; NMR; @=32-65.
CC PDB; 1ZWB; NMR; @=33-68.
CC PDB; 1ZWD; NMR; @=34-68.
CC PDB; 1ZNE; NMR; @=35-68.
CC PDB; 1ZWF; NMR; @=35-68.
CC PDB; 1ZWG; NMR; @=35-68.
CC Ensembl; ENSG00000152266; Homo sapiens.
CC HGNC; HGNC:9606; PTH.
CC
CC MIM; 168450; -;
CC MIM; 146200; -;
CC GO; GO:0005576; C:extracellular region; NAS.
CC GO; GO:0005179; F:hormone activity; TAS.
CC GO; GO:0045453; P:bone resorption; NAS.

DR GO; GO:0006874; P:calcium ion homeostasis; NAS.
DR GO; GO:0046058; P:CAMP metabolism; TAS.
DR GO; GO:0007267; P:cell-cell signaling; TAS.
DR GO; GO:0007186; P:G-protein coupled receptor protein signalin. . .; TAS.
DR GO; GO:0008628; P:induction of apoptosis by hormones; TAS.
DR GO; GO:0001501; P:skeletal development; TAS.
DR InterPro; IPR001415; Parathyroid_hrm.
DR InterPro; IPR003625; Pthyroid_hrm.
DR PANTHER; PTHR10541; Pthyroid_hrm; 1.
DR Pfam; PF01279; Parathyroid; 1.
DR PIRSF; PIRSF01832; PTH; 1.
DR ProDom; PD010687; Pthyroid_hrm; 1.
DR SMART; SM00087; PTH; 1.
DR PROSITE; PS00335; PARATHYROID; 1.
KW 3D-structure; Direct protein sequencing; Disease mutation; Hormone;
KW Signal.
FT SIGNAL 1 25
FT PROPEP 26 31
FT CHAIN 32 115
FT VARIANT 18 18
FT VARIANT 23 23
FT CONFLICT 107 107
FT HELIX 34 64
FT SEQUENCE 115 AA; 12861 MW; 849015736A6E5597 CRC64;
Query Match 87.6%; Score 144.5; DB 1; Length 115;
Best Local Similarity 85.3%; Pred. No. 7.2e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;
QY 1 SVSEIQ-VHNTGKHLNSRVERWELRKLQDVHNY 33
DB 32 SVSEIQVHNTGKHLNSRVERWELRKLQDVHNF 65
RESULT 3
PTHY_MACFA
ID PTHY_MACFA STANDARD; PRT; 115 AA.
AC Q9XT35;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Parathyroid hormone precursor (Parathyrin) (PTH).
GN Name=PTH;
OS Macaca fascicularis (Crab eating macaque) (Cynomolgus monkey).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
OC Cercopitheidae; Cercopithecinae; Macaca.
OX NCBI_TaxID=9541;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RT Malaivijitnond S., Takenaka O.;
RT "Nucleotide sequences of parathyroid gene in five species of macaque
of Thailand".
RL J. Sci. Res. Chulalongkorn Univ. 23:135-142(1998).
CC -!- FUNCTION: PTH elevates calcium level by dissolving the salts in
bone and preventing their renal excretion.
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- SIMILARITY: Belongs to the parathyroid hormone family.
CC
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
between the Swiss Institute of Bioinformatics and the EMBL outstation -
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use as long as its content is in no way modified and this statement is not
removed.
CC
CC EMBL; AF130257; RAD42777.1; -; Genomic_DNA.
CC HSSP; P01270; IET1.
CC InterPro; IPR001415; Parathyroid_hrm.
CC InterPro; IPR003625; Pthyroid_hrm_sub.

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DR PANTHER; PTHR10541; Pthyrohm sub; 1.
DR Pfam; PF01279; Parathyroid; 1.
DR PIRSF; PIRSF001832; PTH; 1.
DR ProDom; PD010687; Pthyrohm sub; 1.
DR SMART; SM00087; PTH; 1.
DR PROSITE; PS00335; PARATHYROID; 1.
KW Hormone; Signal.
FT SIGNAL 1 25 By similarity.
FT PROPEP 26 31 By similarity.
FT CHAIN 32 115 Parathyroid hormone.
SQ SEQUENCE 115 AA; 12890 MW; 8C2500EF24BE5597 CRC64;

Query Match 87.6%; Score 144.5; DB 1; Length 115;
Best Local Similarity 85.3%; Pred. No. 7.2e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

1 SVSEIQ-XHNKGKHLNSXERVELRKKLQDVHNY 33
2 SVSEIQLMHNLGKHLNSMERVELRKKLQDVHNF 65

RESULT 4
Q4VB48 HUMAN PRELIMINARY; PRT; 115 AA.
AC Q4VB48
DT 13-SEP-2005 (TrEMBLrel. 31, Created)
DT 13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DE 13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE Parathyroid hormone, preproprotein.
GN Name=PTH;
OS Homo sapiens (Human)
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=PCR rescued clones;
RX MEDLINE=2238257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Dege J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Donald M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Udell T.B., Toshiyuki S., Carninci P., Prange C.,
RA Rana S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Kettelman M., Madan A., Rodriguez S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smalius D.B.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.,
RT "Generation and initial analysis of more than 15,000 full-length human
and mouse cDNA sequences."
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=PCR rescued clones;
RG NIH MGC Project;
RL Submitted (MAY-2005) to the EMBL/GenBank/DBJ databases.
DR EMBL; BC096143; AAH96143.1; -; mRNA.
DR EMBL; BC096144; AAH96144.1; -; mRNA.
DR EMBL; BC096145; AAH96145.1; -; mRNA.
DR EMBL; BC096142; AAH96142.1; -; mRNA.
DR InterPro; IPR001415; Parathyroid hrm.
DR InterPro; IPR003625; Pthyrohm sub.
DR Pfam; PF01279; Parathyroid; 1.
DR PIRSF; PIRSF001832; PTH; 1.
DR ProDom; PD010687; Pthyrohm sub; 1.

Query Match 87.6%; Score 144.5; DB 1; Length 115;
Best Local Similarity 85.3%; Pred. No. 7.2e-12;
Matches 29; Conservative 1; Mismatches 3; Indels 1; Gaps 1;

1 SVSEIQ-XHNKGKHLNSXERVELRKKLQDVHNY 33
2 SVSEIQLMHNLGKHLNSMERVELRKKLQDVHNF 65

RESULT 5
PTHY CANFA STANDARD; PRT; 115 AA.
AC P52212;
DT 01-OCT-1996 (Rel. 34, Created)
DT 01-OCT-1996 (Rel. 34, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Parathyroid hormone precursor (Parathyrin) (PTH).
GN Name=PTH;
OS Canis familiaris (Dog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Canidae;
OC Canis.
OX NCBI_TaxID=9615;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Parathyroid;
RX MEDLINE=953696; PubMed=7642102; DOI=10.1016/0378-1119(94)00912-C;
RA Rosol T.J., Steinmeyer C.L., McCauley L.K., Groene A., Dewille J.W.,
RA Capen C.C.;
RT "Sequences of the cDNAs encoding canine parathyroid hormone-related
protein and parathyroid hormone."
RL Gene 160:241-243 (1995).
CC -!- FUNCTION: PTH elevates calcium level by dissolving the salts in
bone and preventing their renal excretion.
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- SIMILARITY: Belongs to the parathyroid hormone family.
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
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use as long as its content is in no way modified and this statement is not
removed.
CC EMBL; U15662; AAA82584.1; -; mRNA.
DR PIR; JC4202; JC4202.
DR HSSP; P01268; 1ZWC.
DR Ensembl; ENSCAPG00000008177; Canis familiaris.
DR InterPro; IPR001415; Parathyroid hrm.
DR InterPro; IPR003625; Pthyrohm sub.
DR PANTHER; PTHR10541; Pthyrohm sub; 1.
DR Pfam; PF01279; Parathyroid; 1.
DR PIRSF; PIRSF001832; PTH; 1.
DR ProDom; PD010687; Pthyrohm sub; 1.
DR SMART; SM00087; PTH; 1.
DR PROSITE; PS00335; PARATHYROID; 1.
KW Hormone; Signal.
FT SIGNAL 1 25 By similarity.
FT PROPEP 26 31 By similarity.
FT CHAIN 32 115 Parathyroid hormone.
SQ SEQUENCE 115 AA; 12957 MW; FC38F77F1C8CFE56 CRC64;

Query Match 84.5%; Score 139.5; DB 1; Length 115;
Best Local Similarity 82.4%; Pred. No. 3.5e-11;
Matches 28; Conservative 2; Mismatches 3; Indels 1; Gaps 1;

1 SVSEIQ-XHNKGKHLNSXERVELRKKLQDVHNY 33
2 SVSEIQFMHNLGKHLNSMERVELRKKLQDVHNF 65
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RESULT 6
PTHY_PIG          STANDARD;          PRT;    115 AA.
ID  PTHY_PIG
AC  P01269;
DT  21-JUL-1986 (Rel. 01, Created)
DT  01-JAN-1988 (Rel. 06, Last sequence update)
DT  10-MAY-2005 (Rel. 47, Last annotation update)
DE  Parathyroid hormone precursor (Parathyrin) (PTH).
GN  Name=PTH;
OS  Sus scrofa (Pig).
OC  Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC  Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Suina; Suidae;
OC  Sus.
OX  NCBI_TaxID=9823;
RN  [1]
RP  NUCLEOTIDE SEQUENCE.
RX  MEDLINE=87116938; PubMed=3628009;
RA  Schmelzer H.-J., Gross G., Widera G., Mayer H.;
RT  "Nucleotide sequence of a full-length cDNA clone encoding
RT  preproparathyroid hormone from pig and rat.";
RL  Nucleic Acids Res. 15:6740-6740(1987).
RN  [2]
RP  PROTEIN SEQUENCE OF 26-115.
RX  MEDLINE=76018954; PubMed=1164500;
RA  Chu L.L.H., Huang W.-Y., Littlelike E.T., Hamilton J.W., Cohn D.V.;
RT  "Porcine preproparathyroid hormone. Identification, biosynthesis, and
RT  partial amino acid sequence.";
RL  Biochemistry 14:3631-3635(1975).
RN  [3]
RP  PROTEIN SEQUENCE OF 32-115.
RX  MEDLINE=74253317; PubMed=4840833;
RA  Sauer R.T., Niall H.D., Hogan M.L., Keutmann H.T., O'Riordan J.L.H.,
RA  Potts J.T. Jr.;
RT  "The amino acid sequence of porcine parathyroid hormone.";
RL  Biochemistry 13:1994-1999(1974).
CC  -!- FUNCTION: PTH elevates calcium level by dissolving the salts in
CC  bone and preventing their renal excretion.
CC  -!- SUBCELLULAR LOCATION: Secreted.
CC  -!- SIMILARITY: Belongs to the parathyroid hormone family.
CC  -----
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CC  the European Bioinformatics Institute. There are no restrictions on its
CC  use as long as its content is in no way modified and this statement is not
CC  removed.
CC  -----
DR  EMBL; X05722; CAA29193.1; -; mRNA.
DR  F01270; 1BMX.
DR  HSP; P01270; 1BMX.
DR  InterPro; IPR001415; Parathyroid_hrm.
DR  InterPro; IPR003625; Pthyhorm_sub.
DR  PANTHER; PTHR10541; Pthyhorm_sub; 1.
DR  Pfam; PF01279; Parathyroid; 1.
DR  PIRSF; PIRSF001832; PTH; 1.
DR  ProDom; PD010687; Pthyhorm_sub; 1.
DR  SMART; SM00087; PTH; 1.
DR  PROSITE; PS00335; PARATHYROID; 1.
KW  Direct protein sequencing; Hormone; Signal.
FT  SIGNAL          1 25
FT  PROPEP         26 31
FT  CHAIN          32 115   Parathyroid hormone.
SQ  SEQUENCE      115 AA; 12852 MW; 9FE8BCDE614BAC16 CRC64;

Query Match      84.5%; Score 139.5; DB 1; Length 115;
Best Local Similarity 82.4%; Pred. No. 3.5e-11;
Matches 28; Conservative 2; Mismatches 3; Indels 1; Gaps 1;

QY  1 SVSEIQ-XHXKGHLNLSXERVWLKKLODVNY 33
Db  32 SVSEIQMLNGLKHLSSLRVWLKKLODVHNF 65

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RESULT 7
PTHY_BOVIN        STANDARD;          PRT;    115 AA.
ID  PTHY_BOVIN
AC  P01268;
DT  21-JUL-1986 (Rel. 01, Created)
DT  21-JUL-1986 (Rel. 01, Last sequence update)
DT  10-MAY-2005 (Rel. 47, Last annotation update)
DE  Parathyroid hormone precursor (Parathyrin) (PTH).
GN  Name=PTH;
OS  Bos taurus (Bovine).
OC  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC  Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
OC  Pecora; Bovidae; Bovinae; Bos.
OX  NCBI_TaxID=9913;
RN  [1]
RP  NUCLEOTIDE SEQUENCE.
RX  MEDLINE=80056617; PubMed=388425;
RA  Kronenberg H.M., McDevitt B.E., Majzoub J.A., Nathans J., Sharp P.A.,
RA  Potts J.T. Jr., Rich A.;
RT  "Cloning and nucleotide sequence of DNA coding for bovine
RT  preproparathyroid hormone.";
RL  Proc. Natl. Acad. Sci. U.S.A. 76:4981-4985(1979).
RN  [2]
RP  NUCLEOTIDE SEQUENCE.
RX  MEDLINE=82037785; PubMed=6170060;
RA  Weaver C.A., Gordon D.F., Kemper B.;
RT  "Introduction by molecular cloning of artifactual inverted sequences
RT  at the 5' terminus of the sense strand of bovine parathyroid hormone
RT  cDNA.";
RL  Proc. Natl. Acad. Sci. U.S.A. 78:4073-4077(1981).
RN  [3]
RP  NUCLEOTIDE SEQUENCE.
RX  MEDLINE=83105964; PubMed=6185374; DOI=10.1016/0303-7207(82)90136-8;
RA  Weaver C.A., Gordon D.F., Kemper B.;
RT  "Nucleotide sequence of bovine parathyroid hormone messenger RNA.";
RL  Mol. Cell. Endocrinol. 28:411-424(1982).
RN  [4]
RP  NUCLEOTIDE SEQUENCE.
RX  MEDLINE=84262483; PubMed=6086460; DOI=10.1016/0378-1119(84)90149-5;
RA  Weaver C.A., Gordon D.F., Kissell M.S., Mead D.A., Kemper B.;
RT  "Isolation and complete nucleotide sequence of the gene for bovine
RT  parathyroid hormone.";
RL  Gene 28:319-329(1984).
RN  [5]
RP  PROTEIN SEQUENCE OF 26-115.
RX  MEDLINE=74142666; PubMed=4522780;
RA  Hamilton J.W., Niall H.D., Jacobs J.W., Keutmann H.T., Potts J.T. Jr.,
RA  Cohn D.V.;
RT  "The N-terminal amino-acid sequence of bovine preproparathyroid
RT  hormone.";
RL  Proc. Natl. Acad. Sci. U.S.A. 71:653-656(1974).
RN  [6]
RP  PROTEIN SEQUENCE OF 32-115.
RX  MEDLINE=71076162; PubMed=5531031;
RA  Niall H.D., Keutmann H.T., Sauer R., Hogan M.L., Dawson B.F.,
RA  Aurbach G.D., Potts J.T. Jr.;
RT  "The amino acid sequence of bovine parathyroid hormone I.";
RL  Hoppe-Seyler's Z. Physiol. Chem. 351:1586-1588(1970).
RN  [7]
RP  PROTEIN SEQUENCE OF 32-115.
RX  MEDLINE=71063634; PubMed=5275384;
RA  Brewer H.B. Jr., Ronan R.;
RT  "Bovine parathyroid hormone: amino acid sequence.";
RL  Proc. Natl. Acad. Sci. U.S.A. 67:1862-1869(1970).
RN  [8]
RP  SYNTHESIS OF 32-65.
RX  MEDLINE=71091588; PubMed=4322265;
RA  Potts J.T. Jr., Tregear G.W., Keutmann H.T., Niall H.D., Sauer R.,
RA  Deftos L.J., Dawson B.F., Hogan M.L., Aurbach G.D.;
RT  "Synthesis of a biologically active N-terminal tetraoctapeptide
RT  of parathyroid hormone.";
RL  Proc. Natl. Acad. Sci. U.S.A. 68:63-67(1971).
RN  [9]

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QY 1 SVSEIQ-XHNKGKHLNSXERVELRKKLODVHNY 33
    :||||| ||||| ||||| ||||| |||||
Db 22 AVSEIQLMHNLGKHLASVERMQLRKKLODVHNF 55

RESULT 10
PTHY_RAT
ID PTHY_RAT STANDARD; PRT; 115 AA.
AC P04089; Q63473;
DT 01-NOV-1986 (Rel. 03, Created)
DT 01-NOV-1986 (Rel. 03, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Parathyroid hormone precursor (Parathyrin) (PTH).
GN Names=Pth;
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muroidae; Muridae; Murinae; Rattus.
OX NCBI_TaxID=10116;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=84135846; PubMed=6321505;
RA Heinrich G., Kronenberg H.M., Potts J.T. Jr., Habener J.F.;
RT "Gene encoding parathyroid hormone. Nucleotide sequence of the rat
RT gene and deduced amino acid sequence of rat preproparathyroid
RT hormone."
RL J. Biol. Chem. 259:3320-3329(1984).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=87316938; PubMed=3628009;
RA Schmelzer H.-J., Gross G., Widera G., Mayer H.;
RT "Nucleotide sequence of a full-length cDNA clone encoding
RT preproparathyroid hormone from pig and rat."
RL Nucleic Acids Res. 15:6740-6740(1987).
RN [3]
RP NUCLEOTIDE SEQUENCE OF 10-115.
RC TISSUE=Parathyroid;
RA Schmelzer H.J., Gross G., Mayer H.;
RT "Nucleotide sequence of cloned cDNA encoding rat prepro parathyroid
RT hormone."
RL Adv. Gene Technol. 21:228-229(1984).
RN [4]
RP NUCLEOTIDE SEQUENCE OF 32-115.
RC STRAIN=Sprague-Dawley; TISSUE=Brain, Liver, and Parathyroid;
RX MEDLINE=96079910; PubMed=7598314; DOI=10.1210/en.136.12.5600;
RA Nutley M.T., Parini S.A., Harvey S.;
RT "Sequence analysis of hypothalamic parathyroid hormone messenger
RT ribonucleic acid."
RL Endocrinology 136:5600-5607(1995).
CC -!- FUNCTION: PTH elevates calcium level by dissolving the salts in
CC bone and preventing their renal excretion.
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- TISSUE SPECIFICITY: Hypothalamus and parathyroid gland.
CC -!- SIMILARITY: Belongs to the parathyroid hormone family.
CC -----
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
DR EMBL; K01268; AAA41979.1; -; Genomic_DNA.
DR EMBL; X05721; CAA29192.1; -; mRNA.
DR EMBL; M54875; AAA57156.1; -; mRNA.
DR EMBL; S80127; -; NOT_ANNOTATED_CDS; mRNA.
DR FIR; A05091; A05091.
DR HSSP; P01270; 1ZWB.
DR Ensembl; ENSRNOG00000014318; Rattus norvegicus.
DR RGD; 3440; Pth.
DR InterPro; IPR001415; Parathyroid_hrm.
DR InterPro; IPR003626; PTH_related.
DR InterPro; IPR003625; Pthyrhorm_sub.
```

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DR PANTHER; PTHR10541; Pthyrhorm_sub; 1.
DR Pfam; PF01279; Parathyroid; 1.
DR PIRSF; PIRSF001832; PTH; 1.
DR ProDom; PD013225; PTH_related; 1.
DR ProDom; PD010687; Pthyrhorm_sub; 1.
DR SMART; SM00087; PTH; 1.
DR PROSITE; PS00335; PARATHYROID; 1.
KW Hormone; Signal.
FT SIGNAL 1 25
FT PROPEP 26 31
FT CHAIN 32 115 Parathyroid hormone.
FT CONFLICT 18 23 C -> Y (in Ref. 3).
FT CONFLICT 23 23 A -> T (in Ref. 3).
FT CONFLICT 33 33 V -> I (in Ref. 3).
FT CONFLICT 62 62 V -> G (in Ref. 3).
SQ SEQUENCE 115 AA; 12722 MW; 7B434CFCAS28B230 CRC64;

Query Match 77.3%; Score 127.5; DB 1; Length 115;
Best Local Similarity 73.5%; Pred. No. 1.6e-09;
Matches 25; Conservative 4; Mismatches 4; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSXERVELRKKLODVHNY 33
    :||||| ||||| ||||| ||||| |||||
Db 32 AVSEIQLMHNLGKHLASVERMQLRKKLODVHNF 65

RESULT 11
O920L6 MOUSE
ID O920L6 MOUSE PRELIMINARY; PRT; 115 AA.
AC O920L6;
DT 01-MAY-1999 (TREMBLrel. 10, Created)
DT 01-MAY-1999 (TREMBLrel. 10, Last sequence update)
DT 13-SEP-2005 (TREMBLrel. 31, Last annotation update)
DE Parathyroid hormone precursor.
GN Names=Pth;
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muroidae; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC STRAIN=129/Sv;
RA Karaplis A.C., He B., Hiou-Tim F.F.T., Al-Akad B., Kronenberg H.M.;
RT "Cloning of the murine gene encoding parathyroid hormone: genomic
RT organization and nucleotide sequence."
RL Submitted (MAY-1998) to the EMBL/GenBank/DBJ databases.
RN [2]
RP NUCLEOTIDE SEQUENCE.
RX TISSUE=Thyroid;
CC MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullany S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Kettman M., Madan A., Rodriguez S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences."
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [3]
RP NUCLEOTIDE SEQUENCE.
```

RC TISSUE=Thyroid;
 RG NIH MGC Project;
 RL Submitted (JUL-2005) to the EMBL/GenBank/DBJ databases.
 DR EMBL; AF066075; AAC9956.1; -; Genomic DNA.
 DR EMBL; BC099456; AAH99456.1; -; mRNA.
 DR HSSP; P01270; LZWB.
 DR Ensemble; ENSMUSG00000059077; Mus musculus.
 DR MGI; MGI:97799; Pth.
 DR GO; GO:0005615; C:extracellular space; IDA.
 DR GO; GO:0005179; F:hormone activity; IDA.
 DR GO; GO:0006874; P:calcium ion homeostasis; TAS.
 DR InterPro; IPR001415; Parathyroid hrm.
 DR PANTHER; PTHR10541; Pthyrhorm_sub.
 DR Pfam; PF01279; Parathyroid; 1.
 DR PIRSF; PIRSF001832; PTH; 1.
 DR ProDom; PD010687; Pthyrhorm_sub; 1.
 DR SMART; SM00087; PTH; 1.
 DR PROSITE; PS00335; PARATHYROID; 1.
 KW Signal.
 FT SIGNAL 1 25 Potential.
 FT CHAIN 32 115 parathyroid hormone.
 SQ SEQUENCE 115 AA; 12825 MW; DA43FABBCB4E2FD9 CRC64;
 Query Match 73.6%; Score 121.5; DB 2; Length 115;
 Best Local Similarity 67.6%; Pred. No. 1.1e-08;
 Matches 23; Conservative 6; Mismatches 4; Indels 1; Gaps 1;
 QY 1 SVSBIQ-XHNKGKHLNSXERVEWLRKQLQDVHNY 33
 :|||||:|||||:|||||:|||||:|||||:|||||:
 Db 32 AVSBIQLMHLNKGKHLASMERQWLRLKQLQDMHNF 65
 RESULT 12
 PTHY CHICK
 ID PTHY CHICK STANDARD; PRT; 119 AA.
 AC P15743;
 DT 01-APR-1990 (Rel. 14, Created)
 DT 01-APR-1990 (Rel. 14, Last sequence update)
 DT 13-SEP-2005 (Rel. 48, Last annotation update)
 DE Parathyroid hormone precursor (PTH).
 GN Name=PTH;
 OS Gallus gallus (Chicken).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
 OC Acanthomorpha; Acanthopterygii; Percormorpha; Tetraodontiformes;
 OC Tetraodonidae; Tetraodontidae; Takifugu.
 OC NCBI_TaxID=9031;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=89219100; PubMed=2710135;
 RA Russell J., Sherwood L.M.;
 RT "Nucleotide sequence of the DNA complementary to avian (chicken) preproparathyroid hormone mRNA and the deduced sequence of the hormone precursor.";
 RL Mol. Endocrinol. 3:325-331(1989).
 RN [2]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=89284968; PubMed=3251402;
 RA Khosla S., Demay M., Pines M., Hurwitz S., Potts J.T. Jr.,
 RA Kronenberg H.M.;
 RT "Nucleotide sequence of cloned cDNAs encoding chicken preproparathyroid hormone.";
 RL J. Bone Miner. Res. 3:689-698(1988).
 CC -!- FUNCTION: PTH elevates calcium level by dissolving the salts in bone and preventing their renal excretion.
 CC -!- SUBCELLULAR LOCATION: Secreted.
 CC -!- SIMILARITY: Belongs to the parathyroid hormone family.
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CC -----
 DR EMBL; M31604; AAA49093.1; -; mRNA.
 DR EMBL; M36522; AAB02866.1; -; mRNA.
 DR FIR; A34937; A34937.
 DR HSSP; P01270; IFVY.
 DR Ensemble; ENSGALG00000005358; Gallus gallus.
 DR InterPro; IPR001415; Parathyroid hrm.
 DR InterPro; IPR003626; PTH related.
 DR InterPro; IPR003625; Pthyrhorm_sub.
 DR PANTHER; PTHR10541; Pthyrhorm_sub; 1.
 DR Pfam; PF01279; Parathyroid; 1.
 DR PIRSF; PIRSF001832; PTH; 1.
 DR ProDom; PD013225; PTH related; 1.
 DR ProDom; PD010687; Pthyrhorm_sub; 1.
 DR SMART; SM00087; PTH; 1.
 DR PROSITE; PS00335; PARATHYROID; 1.
 KW Hormone; Signal.
 FT SIGNAL 1 25
 FT PROPEP 26 31
 FT CHAIN 32 119 Parathyroid hormone.
 SQ SEQUENCE 119 AA; 13943 MW; B309D8E772997F6E CRC64;
 Query Match 58.5%; Score 96.5; DB 1; Length 119;
 Best Local Similarity 57.6%; Pred. No. 3e-05;
 Matches 19; Conservative 7; Mismatches 6; Indels 1; Gaps 1;
 QY 1 SVSBIQ-XHNKGKHLNSXERVEWLRKQLQDVHN 32
 :|||||:|||||:|||||:|||||:|||||:|||||:
 Db 32 SVSEMQLMHLNKGKHLASMERQWLRLKQLQDVHS 64
 RESULT 13
 Q6W9J4_FUGRU
 ID Q6W9J4_FUGRU PRELIMINARY; PRT; 91 AA.
 AC Q6W9J4;
 DT 05-JUL-2004 (TrEMBLrel. 27, Created)
 DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
 DT 05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
 DE Parathyroid hormone type-2.
 GN Name=PTH;
 OS Fugu rubripes (Japanese pufferfish) (Takifugu rubripes).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
 OC Acanthomorpha; Acanthopterygii; Percormorpha; Tetraodontiformes;
 OC Tetraodonidae; Tetraodontidae; Takifugu.
 OC NCBI_TaxID=31033;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RX PubMed=14684608; DOI=10.1210/en.2003-0964;
 RA Gensure R.C., Ponugoti B., Gunes Y., Papasani M.R., Lanske B.,
 RA Bastape M., Rubin D.A., Juppner H.;
 RT "Identification and characterization of two parathyroid hormone-like molecules in zebrafish.";
 RT molecules in zebrafish.";
 RL Endocrinology 145:1634-1639(2004).
 DR EMBL; AY302221; AAQ73561.1; -; Genomic DNA.
 DR GO; GO:0005576; C:extracellular region; IEA.
 DR GO; GO:0005179; F:hormone activity; IEA.
 DR GO; GO:0007595; P:lactation; IEA.
 DR InterPro; IPR001415; Parathyroid hrm.
 DR InterPro; IPR003625; Pthyrhorm_sub.
 DR InterPro; IPR003626; PTH related.
 DR PANTHER; PTHR10541; Pthyrhorm_sub; 1.
 DR Pfam; PF01279; Parathyroid; 1.
 DR ProDom; PD010687; Pthyrhorm_sub; 1.
 DR ProDom; PD013225; PTH related; 2.
 DR SMART; SM00087; PTH; 1.
 SQ SEQUENCE 91 AA; 10647 MW; 75BBA25CEA64BF68 CRC64;
 Query Match 43.3%; Score 71.5; DB 2; Length 91;
 Best Local Similarity 45.2%; Pred. No. 0.062;
 Matches 14; Conservative 8; Mismatches 8; Indels 1; Gaps 1;
 QY 1 SVSBIQ-XHNKGKHLNSXERVEWLRKQLQDV 30

D6b
30 TISEVQLMHNVREHKQVGERQDWLQEKLDKV 60

```

RESULT 14
QSTLZI BRARE PRELIMINARY;      PRT;   102 AA.
AC QSTLZ1;
DT 01-FEB-2005 (trEMBLrel. 29, Created)
DT 01-FEB-2005 (trEMBLrel. 29, Last sequence update)
DT 01-FEB-2005 (trEMBLrel. 29, Last annotation update)
DE Parathyroid hormone.
GN Name=pth1; Synonyms=PTH;
OS Brachydanio rerio (Zebrafish) (Danio rerio).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Telsoscei; Ostariophysi; Cypriniformes;
OC Cyprinidae; Danio.
OX NCBI_TaxID=7955;
RN 1)
RP NUCLEOTIDE SEQUENCE.
RA Okabe M., Graham A.;
RL "The origin of the parathyroid gland.";
RL Proc. Natl. Acad. Sci. U.S.A. 101:17716-17719 (2004).
DR ENBL; AB175679; BAD72832.1; -; mRNA.
DR ZFIN; ZDB-GENE-040623-1; pth1.
DR GO; GO:0005576; C:extracellular region; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR InterPro; IPR001415; Parathyrd hrm.
DR InterPro; IPR003625; Pthythorm sub.
DR PANTHER; PTHR10541; Pthythorm sub; 1.
DR Pfam; PF01279; Parathyroid; 1_.
DR ProDom; PD010687; Pthythorm_sub; 1.
DR SMART; SM00087; PTH; 1.
SQ SEQUENCE 102 AA; 11641 MW; 5AA7B0F8A4110764 CRC64;

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Query Match	39.7%	Score	65.5	DB	2	Length	102
Best Local Similarity	40.6%	Pred. NO.	0.46				
Matches	13	Conservative	8	Mismatches	10	Indels	1
						Gaps	1

Qy 1 SVSFIQ-XHNXGKHLNSXERVEWLRKKLQDVH 31
: : : : | | | | : : : : | : : : : |
Db 36 AVNEVQLMHNLGVHKHVELRQDWLQMKLRGIH 67

RESULT 15	
Q6WQ25_BRARE	
ID Q6WQ25_BRARE PRELIMINARY;	PRT; 102 AA.
AC Q6WQ25_	
DC 05-JUL-2004 (TrEMBLrel. 27, Created)	
DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)	
DS 05-JUL-2004 (TrEMBLrel. 27, Last annotation update)	
DE Parathyroid hormone ligand type-1.	
GN Name=pthl;	
OS Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;	
OC Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;	
CC Cyprinidae; Danio.	
OX NCBI_TaxId=7955;	
RN [1]	
RP NUCLEOTIDE SEQUENCE.	
RX PubMed=14684608; DOI=10.1210/en.2003-0964;	
RA Gensure R.C., Ponguti B., Gunes Y., Papasani M.R., Lanske B.,	
RA Bastepe M., Rubin D.A., Juppner H.;	
RT "Identification and characterization of two parathyroid hormone-like	
RT molecules in zebrafish.";	
RL Endocrinology 145:1634-1639(2004).	
DR ENBL; AV275669; AAQ18566.1; -; mRNA.	
DR ZFIN; ZDB-GENE-040623-1; pth1.	
DR GO; GO:0005576; C:extracellular region; IEA.	
DR GO; GO:0005179; F:hormone activity; IEA.	
DR InterPro; IPR001415; Parathyrd_hrm.	
DR InterPro; IPR003625; Pthyrrhorm sub.	
DR PANTHER; PTHR10541; Pthyrrhorm sub; 1.	

DR Pfam; PF01279; Parathyroid; 1.
DR pCDom; PD010687; Pthyrbom_sub; 1.
DR SMART; SM0087; PTH; 1.
DR pCDom; PD010687; PTH; 1.
SQ SEQUENCE 102 AA; 11690 MW; 5AA7A84FF4110764 CRC64;

Query Match 39.7%; Score 65.5; DB 2; Length 102;
Best Local Similarity 40.6%; Pred. No. 0.46;
Matches 13; Conservative 8; Mismatches 10; Indels 1; Gaps 1;

Qy 1 SVSEIQ-XHNXGHLNSERVEWLKRLQDVH 31
 : : : : | | | : | : : : | : : : |
Db 36 AVNEVQLMNLGVKKHVLRQDWLQMKLGRGIH 67

RESULT 16

Accession ID	Q6WQ24_BRARE	Q6WQ24_BRARE PRELIMINARY;	PRT; 99 AA.
ID	Q6WQ24_BRARE	Q6WQ24;	
AC	Q6WQ24;		
DT	05-JUL-2004	(TREMBLrel. 27, Created)	
DD	05-JUL-2004	(TREMBLrel. 27, Last sequence update)	
DE	05-JUL-2004	(TREMBLrel. 27, Last annotation update)	
DE	Parathyroid hormone ligand type-2.		
GN	Name=pthz;		
OS	Brachydanio rerio (Zebrafish) (Danio rerio).		
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;		
OC	Acyrotoperygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;		
OC	Cyprinidae; Danio.		
OX	NCBI_TaxID=7955;		
RN	[1]		
RP	NUCLEOTIDE SEQUENCE..		
RX	PubMed14684608; DOI=10.1210/en.2003-0364;		
RA	Gensure R.C., Ponugoti B., Gunes Y., Papasani M.R., Lanske B.,		
RA	Bastepe M., Rubin D.A., Juppner H.,		
RT	Identification and characterization of two parathyroid hormone-like		

RI molecules in zebrafish.
 RL Endocrinology 145:1634-1639(2004).
 DR EMBL; AY275670; AAQ16567.1; -; mRNA.
 DR ZFIN; ZDB-GENE-040623-2; pth2.

DR GO:0005179; F:hormone activity; I
DR GO:0005179; F:hormone activity; I
DR InterPro; IPR001415; Parathyrd_hrm.
DR InterPro; IPR003625; Pthyrhorm_sub.

DR FRAM; FFO1279; Parachyroid; 1.
DR PRODom; PD010687; Pthyhorm_sub; 1.
DR SMART; SM00087; PTH; 1.
SQ SEQUENCE 99 AA; 11569 MW; 7F8BFE84A7CA4D62 CRC64;

Query Match 37.9%; Score 62.5; DB 2; Length 99;
Best Local Similarity 38.7%; Pred. No. 1.2;
Matches 12: Conservative 8; Mismatches 10; Indels 1;
Gaps 1;

QY 1 SVSEIQ-XHNXGKHLNSXERVEWLKKLQDV 30
| : | : | | : | : | : | : | : | :
D6 34 SISEVOLMHNVRHEKEMLDRODLOLKNNI 64

RESIST 17

Q4RYP8	TETNG
RES001	17
ID	Q4RYP8 TETNG PRELIMINARY; PRT; 1449 AA.
AC	Q4RYP8;
DT	13-SEP-2005 (T-EMBLRel. 31, Created)
DT	13-SEP-2005 (T-EMBLrel. 31, Last sequence update)
DT	13-SEP-2005 (T-EMBLrel. 31, Last annotation update)
DE	Chromosome 17 SCAF15006, whole genome shotgun sequence. (Fragment).
GN	ORFNames=GSTENG0030867001; OS Tetraodon nigroviridis (Green puffer).
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC	Acanthopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC	Acanthomorpha; Acanthopterygii; Percormorpha; Tetraodontiformes;
OC	Tetraodontoidea; Tetraodontidae; Tetraodon.
OX	NCBI TaxID=99883;

RN NUCLEOTIDE SEQUENCE.
 RP Jaillon O., Aury J.M., Brunet F., Petit J.L., Stange-Thomann N.,
 RA Mauceli E., Bouneau L., Fischer C., Ozouf-Costaz C., Bernot A.,
 RA Nicaud S., Jaffe D., Fisher S., Lutfalla G., Dossat C., Segurens B.,
 RA Dasilva C., Salanoubat M., Levy M., Boudet N., Castellano S.,
 RA Anthouard V., Jubin C., Castelli V., Katinka M., Vacherie B.,
 RA Biemont C., Skalli Z., Cattolico L., Poulain J., De Berardinis V.,
 RA Perru G., Duprat S., Brottier P., Coutanceau J.P., Gouzy J.,
 RA Crau G., Lardier G., Chappelle C., McKernan K.J., McEwan P., Bosak S.,
 RA Kellis M., Volff J.N., Guigo R., Zody M.C., Mesirov J.,
 RA Lindblad-Toh K., Birren B., Nusbaum C., Kahn D., Robinson-Rechavi M.,
 RA Laudet V., Schachter V., Quetier F., Saurin W., Scarpelli C.,
 RA Winkler P., Lander E.S., Weissenbach J., Roest Croliius H.,
 RA "Genome duplication in the teleost fish Tetraodon nigroviridis reveals
 RT the early vertebrate proto-karyotype.";
 RL Nature 431:946-957(2004).
 RN [2]
 RP NUCLEOTIDE SEQUENCE.
 RG Genoscope; Whitehead
 RL Submitted (FEB-2004) to the EMBL/GenBank/DBJ databases.
 CC -!- CAUTION: The sequence shown here is derived from an
 CC EMBL/GenBank/DBJ whole genome shotgun (WGS) entry which is
 CC preliminary data.
 DR EMBL; CAAE01015006; CAG09544.1; -; Genomic_DNA.
 FT NON-TER 1
 SQ SEQUENCE 1449 AA; 157867 MW; E1608E07DA30F7DC CRC64;
 Query Match 37.6%; Score 62; DB 2; Length 1449;
 Best Local Similarity 50.0%; Pred. No. 21;
 Matches 10; Conservative 7; Mismatches 3; Indels 0; Gaps 0;
 QY 14 LNSXERVEWLKRLQDVHNY 33
 DB 1373 MNSLERISFLQKLQDIRN 1392
 RESULT 18
 Q918E9_FUGRU
 ID Q918E9_FUGRU PRELIMINARY; PRT; 163 AA.
 AC Q918E9;
 DT 01-OCT-2000 (T-EMBLrel. 15, Created)
 DT 01-OCT-2000 (T-EMBLrel. 15, Last sequence update)
 DT 01-JUN-2003 (T-EMBLrel. 24, Last annotation update)
 DE Parathyroid hormone-related protein precursor.
 GN Names:PTHrP;
 OS Fugu rubripes (Japanese pufferfish) (Takifugu rubripes).
 CC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 CC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
 CC Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
 CC Tetraodontidae; Tetraodontidae; Takifugu.
 OX NCBI_TaxID=31033;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RX MEDLINE=20314478; PubMed=10854780; DOI=10.1016/S0378-1119(00)00167-0;
 RA Power D.M., Flannigan J., Ingleton P.M., Canario A.V.M., Danks J.,
 RA Elgar G., Clark M.S.;
 RT "Genomic structure and expression of parathyroid hormone-related
 RT protein in a teleost, Fugu rubripes.";
 RL Gene 250:67-76(2000).
 DR EMBL; Auz249391; CAB94712.1; -; Genomic_DNA.
 DR HSSP; P12272; 1BZG.
 DR Ensembl; SINFUG000000131728; Fugu rubripes.
 DR GO; GO:0005576; C:extracellular region; IEA.
 DR GO; GO:0005179; F:hormone activity; IEA.
 DR GO; GO:0007595; P:lactation; IEA.
 DR InterPro; IPR001415; Parathyroid hrm.
 DR InterPro; IPR003626; PTH related.
 DR Pfam; PF01279; Parathyroid; 1.
 DR ProDom; PD013225; PTH_related; 1.
 KW Signal.
 FT SIGNAL 1 34 Potential.
 SQ SEQUENCE 163 AA; 18698 MW; 3AC5F2C764732278 CRC64;

Query Match 36.7%; Score 60.5; DB 2; Length 163;
 Best Local Similarity 43.8%; Pred. No. 3.6;
 Matches 14; Conservative 4; Mismatches 13; Indels 1; Gaps 1;
 QY 1 SVSEIQ-XHNKGKHLNSXERVEWLKRLQDVH 31
 DB 38 SVSHAQLMHDKGRSLQEFRRRWLHKLLEVH 69
 RESULT 19
 Q51GF8_ENTHI
 ID Q51GF8_ENTHI PRELIMINARY; PRT; 391 AA.
 AC Q51GF8;
 DT 13-SEP-2005 (T-EMBLrel. 31, Created)
 DT 13-SEP-2005 (T-EMBLrel. 31, Last sequence update)
 DT 13-SEP-2005 (T-EMBLrel. 31, Last annotation update)
 DE Eukaryotic initiation factor 4A, putative.
 GN ORFNames=3.t00028;
 OS Entamoeba histolytica HM-1:IMSS.
 CC Eukaryota; Entamoebidae; Entamoeba.
 OX NCBI_TaxID=294381;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RC STRAIN=HM-1:IMSS;
 RX PubMed=15729342; DOI=10.1038/nature03291;
 RA Loftus B., Anderson I., Davies R., Alsmark U.C., Samuelson J.,
 RA Amedeo P., Roncaglia P., Berriman M., Hirt R.P., Mann B.J., Nozaki T.,
 RA Suh B., Pop M., Duchene M., Ackers J., Tannich E., Leippe M.,
 RA Hofer M., Bruchhaus I., Willhoef U., Bhattacharya A.,
 RA Chillingworth T., Churcher C., Hance Z., Harris B., Harris D.,
 RA Jagels K., Moule S., Mungall K., Ormond D., Squares R., Whitehead S.,
 RA Quail M.A., Rabinowitsch E., Norbertczak H., Price C., Wang Z.,
 RA Guillen N., Gilchrist C., Stroup S.E., Bhattacharya S., Lohia A.,
 RA Foster P.G., Sichert-Ponten T., Weber C., Singh U., Mukherjee C.,
 RA El-Sayed N.M., Petri W.A., Clark C.G., Embley T.M., Barrell B.,
 RA Fraser C.M., Hall N.;
 RT "The genome of the protist parasite Entamoeba histolytica.";
 RL Nature 433:865-868(2005).
 CC -!- CAUTION: The sequence shown here is derived from an
 CC EMBL/GenBank/DBJ whole genome shotgun (WGS) entry which is
 CC preliminary data.
 CC -!- SIMILARITY: Belongs to the DEAD box helicase family.
 DR EMBL; AAFB01000013; EAL51901.1; -; Genomic_DNA.
 DR GO; GO:0003743; F:translation initiation factor activity; IEA.
 DR InterPro; IPR001410; DEAD.
 DR InterPro; IPR011545; DEAD/DEAH_N.
 DR InterPro; IPR000629; DEAD box.
 DR InterPro; IPR001650; Helicase_C.
 DR Pfam; PF00270; DEAD; 1.
 DR Pfam; PF00271; Helicase_C; 1.
 DR SMART; SM00487; DEXDC; 1.
 DR SMART; SM00490; HELIC_C; 1.
 DR PROSITE; PS00039; DEAD ATP HELICASE; 1.
 KW ATP-binding; Helicase; Hydrolase; Initiation factor;
 KW Nucleotide-binding; RNA-binding
 SQ SEQUENCE 391 AA; 44041 MW; 22107ADBFE46EF93 CRC64;
 Query Match 36.7%; Score 60.5; DB 2; Length 391;
 Best Local Similarity 57.9%; Pred. No. 8.9;
 Matches 11; Conservative 4; Mismatches 3; Indels 1; Gaps 1;
 QY 15 NSXERVEWLKRLQDVHNY 33
 DB 265 NSKNVEWIQRLQ-AHNY 282
 RESULT 20
 CB30_HYDMC
 ID CB30_HYDMC STANDARD; PRT; 15 AA.
 AC P83630;
 DT 25-OCT-2004 (Rel. 45, Created)
 DT 25-OCT-2004 (Rel. 45, Last sequence update)

DT 13-SEP-2005 (Rel. 48, Last annotation update)
 DE Chitin-binding protein HM30 (Fragment).
 OS Hydrangea macrophylla (Bigleaf hydrangea).
 OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
 OC Spermatophyta; Magnoliophyta; eudicotyledons; core eudicotyledons;
 OC asterids; Cornales; Hydrangeaceae; Hydrangea.
 OX NCBI_TaxID=23110;
 RN
 RP PROTEIN SEQUENCE, FUNCTION, INDUCTION, AND MASS SPECTROMETRY.
 RC TISSUE=Leaf;
 RX MEDLINE=21671918; PubMed=11812226; DOI=10.1006/prep.2001.1551;
 RA Yang Q., Gong Z.-Z.;
 RT "Purification and characterization of an ethylene-induced antifungal
 RT protein from leaves of Guilder rose (Hydrangea macrophylla).";
 RL Protein Expr. Purif. 24:76-82(2002).
 CC -!- FUNCTION: Has antifungal activity against A.alternate,
 CC A.cucumerina, A.niger, C.gossypii, F.oxysporum, F.oxysporum subsp
 CC melonis, F.moniliforme, F.cucumeris, and V.dahliae. Has no
 CC chitinase or agglutination activities.
 CC -!- INDUCTION: By ethylene.
 CC -!- MASS SPECTROMETRY: MW=30010; METHOD=Electrospray; RANGE=1-?;
 CC NOTE=Ref.1.
 CC -!- SIMILARITY: Belongs to the parathyroid hormone family.
 CC -!- CAUTION: 14 of the 15 residues are identical to an internal region
 CC of human parathyroid hormone. That seems quite an incredible
 CC "coincidence".
 CC -----
 CC This Swiss-Prot entry is copyright. It is produced through a collaboration
 CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
 CC the European Bioinformatics Institute. There are no restrictions on its
 CC use as long as its content is in no way modified and this statement is not
 CC removed.
 CC -----
 CC Antimicrobial: Chitin-binding; Direct protein sequencing; Fungicide.
 KW NON_TER 15 15
 FT SEQUENCE 15 AA; 1875 MW; 7EB51EEC7D5B84DD CRC64;
 SQ

Query Match 35.8%; Score 59; DB 1; Length 15;
 Best Local Similarity 86.7%; Pred. No. 0.51;
 Matches 13; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 15 NSXERVEVLRKKLQD 29
 || ||||| |||||
 Db 1 NSMERVEELRKKLQD 15

RESULT 21
 Q8BYA2 MOUSE
 ID Q8BYA2_MOUSE:PRELIMINARY; PRT; 140 AA.
 AC Q8BYA2;
 DT 01-MAR-2003 (TrEMBLrel. 23, Created)
 DT 01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
 DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
 DE Mus musculus 3 days neonate thymus cDNA, RIKEN full-length enriched
 DE library, clone:A63009N03 product:RETINOBLASTOMA-BINDING PROTEIN 1
 DE (RBBP-1) homolog (Fragment).
 GN Name:Arid4a;
 OS Mus musculus (Mouse).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
 OC Muridae; Murinae; Mus.
 OX NCBI_TaxID=10090;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RC STRAIN=C57BL/6J; TISSUE=Thymus;
 RX MEDLINE=99279253; PubMed=10349636; DOI=10.1016/S0076-6879(99)03004-9;
 RA Carninci P., Hayashizaki Y.;
 RT "High-efficiency full-length cDNA cloning.";
 RL Meth. Enzymol. 303:19-44(1999).
 RN [2]
 RP NUCLEOTIDE SEQUENCE.
 RC STRAIN=C57BL/6J; TISSUE=Thymus;
 RX MEDLINE=21085660; PubMed=11217851; DOI=10.1038/35055500;

RA Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,
 RA Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
 RA Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
 RA Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
 RA Kadota K., Matsuoka H., Ashturner M., Batalov S., Casavant T.,
 RA Fleischmann W., Gaasterland T., Glessi C., King B., Kochiwa H.,
 RA Kuehl P., Lewis S., Matsuo Y., Nikaide I., Pesole G., Quackenbush J.,
 RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
 RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
 RA Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
 RA Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
 RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
 RA Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
 RA Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
 RA Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
 RA Suzuki H., Tovo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
 RA Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohseki S.,
 RA Hayashizaki Y.;
 RT "Functional annotation of a full-length mouse cDNA collection.";
 RL Nature 409:685-690(2001).
 RP NUCLEOTIDE SEQUENCE.
 RC STRAIN=C57BL/6J; TISSUE=Thymus;
 RA The PANTOM Consortium,
 RA the RIKEN Genome Exploration Research Group Phase I & II Team;
 RT "Analysis of the mouse transcriptome based on functional annotation of
 RT 60,770 full-length cDNAs.";
 RL Nature 420:563-573(2002).
 RN [4]
 RP NUCLEOTIDE SEQUENCE.
 RC STRAIN=C57BL/6J; TISSUE=Thymus;
 RX MEDLINE=20499374; PubMed=11042159; DOI=10.1101/gr.145100;
 RA Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K., Itoh M.,
 RA Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;
 RT "Normalization and subtraction of cap-trapper-selected cDNAs to
 RT prepare full-length cDNA libraries for rapid discovery of new genes.";
 RL Genome Res. 10:1617-1630(2000).
 RP NUCLEOTIDE SEQUENCE.
 RC STRAIN=C57BL/6J; TISSUE=Thymus;
 RX MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;
 RA Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,
 RA Konno H., Akiyama J., Nishi K., Kitsumi T., Tashiro H., Itoh M.,
 RA Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A.,
 RA Yamamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K.,
 RA Fujiwaki S., Inoue K., Togawa Y., Izawa M., Ohara E., Watanabe M.,
 RA Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,
 RA Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;
 RT "RIKEN integrated sequence analysis (RISA) system-384-format
 RT sequencing pipeline with 384 multicapillary sequencer.";
 RL Genome Res. 10:1757-1771(2000).
 RN [6]
 RP NUCLEOTIDE SEQUENCE.
 RC STRAIN=C57BL/6J; TISSUE=Thymus;
 RA Adachi J., Aizawa K., Akimura T., Arakawa T., Bono H., Carninci P.,
 RA Fukuda S., Furuno M., Hanagaki T., Hara A., Hashizume W.,
 RA Hayashida K., Hayatsu N., Hiramoto K., Hiraoka T., Hirozane T.,
 RA Hori F., Imotani K., Ishii Y., Itoh M., Kagawa I., Kasukawa T.,
 RA Katoh H., Kawai J., Kojima Y., Kondo S., Konno H., Kouda M., Koya S.,
 RA Kurihara C., Matsuyama T., Miyazaki A., Murata M., Nakamura M.,
 RA Nishi K., Nomura K., Numazaki R., Ohno M., Ohsato N., Okazaki Y.,
 RA Saito R., Saitoh H., Sakai C., Sakai K., Sakazume N., Sano H.,
 RA Sasaki D., Shibata K., Shinagawa A., Shiraki T., Sogabe Y., Tagami M.,
 RA Tagawa A., Takahashi F., Takaku-Akai H., Takeda Y., Tanaka T.,
 RA Tomaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y.;
 RL Submitted (JUL-2001) to the EMBL/GenBank/DBJ databases.
 DR EMBL; AK041444; BAC30948.1; -; mRNA.
 DR Ensembl; ENSMUSG0000034629; Mus musculus.
 DR MGI; MGI:2444354; Arid4a.
 RP NON_TER 1 1
 SQ SEQUENCE 140 AA; 15988 MW; 15CE80236A5E9930 CRC64;

Query Match

35.8%; Score 59; DB 2; Length 140;

Best Local Similarity 42.9%; Pred. No. 5;
Matches 9; Conservative 8; Mismatches 4; Indels 0; Gaps 0;

QY 13 HLNSEVERVWLRKKLQDVHNY 33
Db 62 MNSTERISFLQELQIRKY 82

RESULT 22

Q60KX2 CAEBR
ID Q60KX2 CAEBR PRELIMINARY; PRT; 926 AA.
AC Q60KX2;
DT 25-OCT-2004 (TRENBLrel. 28, Created)
DT 25-OCT-2004 (TRENBLrel. 28, Last sequence update)
DT 25-OCT-2004 (TRENBLrel. 28, Last annotation update)
DE Hypothetical protein CBG23865.
GN Name=CBG23865;
OS Caenorhabditis briggsae.
OC Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea;
OC Rhabditidae; Peloderinae; Caenorhabditis.
ON NCBI_TaxID=6238;
RX NCBI
[1]
RP NUCLEOTIDE SEQUENCE
RG The C. briggsae Sequencing Consortium;
RL Submitted (SEP-2003) to the EMBL/GenBank/DBJ databases.
CC -! CAUTION: The sequence shown here is derived from an
CC EMBL/GenBank/DBJ whole genome shotgun (WGS) entry which is
CC preliminary data.
CC EMBL; CAAC01000197; CAE56230.1; -; Genomic DNA.
DR GO; GO:0000151; C:ubiquitin ligase complex; IEA.
DR GO; GO:0046872; F:metal ion binding; IEA.
DR GO; GO:0004842; F:ubiquitin-protein ligase activity; IEA.
DR GO; GO:0008270; F:zinc ion binding; IEA.
DR GO; GO:0016567; P:protein ubiquitination; IEA.
DR InterPro; IPR001841; Znf RING.
DR PROSITE; PS50089; Zf RING 2; 1.
KW Hypothetical protein; Metal-binding; Nuclear protein; Zinc;
KW Zinc-finger.
SQ SEQUENCE 926 AA; 106547 MW; 989B11391F8AB4BA CRC64;

Query Match 35.8%; Score 59; DB 2; Length 926;

Best Local Similarity 38.7%; Pred. No. 35;
Matches 12; Conservative 5; Mismatches 14; Indels 0; Gaps 0;

QY 1 SVSEIQHNKXGHLNSEVERVWLRKKLQDVH 31
Db 372 SVHEIPRHNGDYFISMEDVWVWVAKWKY 402

RESULT 23

ARI4A HUMAN
ID ARI4A HUMAN STANDARD; PRT; 1257 AA.
AC P29374; Q15991; Q15992; Q15993;
DT 01-DEC-1992 (Rel. 24, Created)
DT 01-OCT-1996 (Rel. 34, Last sequence update)
DT 13-SEP-2005 (Rel. 48, Last annotation update)
DE AT-rich interactive domain-containing protein 4A (ARID domain-
DE containing protein 4A) (Retinoblastoma-binding protein 1) (RBBP-1).
GN Name=ARI4A; Synonyms=RBBP1, RBPI;
OS Homo sapiens (human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
ON NCBI_TaxID=9606;
RX NCBI
[1]
RP NUCLEOTIDE SEQUENCE (ISOFORM I).
EX MEDLINE=94020841; PubMed=8414517;
RA Fattaey A.R., Helin K., Dembski M.S., Dyson N., Harlow E.,
RA Vuocolo G.A., Hanobik M.G., Haskell K.M., Oliff A., Defeo-Jones D.,
RA Jones R.E.;
RT "Characterization of the retinoblastoma binding proteins RBP1 and
RT RBP2.";
RL Oncogene 8:3149-3156(1993).

RN [2]
RP NUCLEOTIDE SEQUENCE, SUBCELLULAR LOCATION, AND ALTERNATIVE SPLICING.
RX MEDLINE=93205410; PubMed=8455946;
RA Otterson G.A., Kratzke R.A., Lin A.Y., Johnston P.G., Kaye F.J.;
RT "Alternative splicing of the RBP1 gene clusters in an internal exon
RT that encodes potential phosphorylation sites.";
RL Oncogene 8:949-957(1993).
RN [3]
RP NUCLEOTIDE SEQUENCE OF 855-1203 (ISOFORM I).
RX MEDLINE=91312450; PubMed=1857421; DOI=10.1038/352251a0;
RA Defeo-Jones D., Huang P.S., Jones R.B., Haskell K.M., Vuocolo G.A.,
RA Hanobik M.G., Huber H.E., Oliff A.;
RT "Cloning of cDNAs for cellular proteins that bind to the
RT retinoblastoma gene product.";
RL Nature 352:251-254(1991).
RN [4]
RP PHOSPHORYLATION SITE SER-1109.
RX PubMed=15302935; DOI=10.1073/pnas.0404720101;
RA Beausoleil S.A., Jedrychowski M., Schwartz D., Elias J.E., Villen J.,
RA Li J., Cohn M.A., Cantley L.C., Gygi S.P.;
RT "Large-scale characterization of HeLa cell nuclear phosphoproteins.";
RL Proc. Natl. Acad. Sci. U.S.A. 101:12130-12135(2004).
CC -! FUNCTION: Interacts with the viral protein-binding domain of the
CC retinoblastoma protein.
CC -! SUBCELLULAR LOCATION: Nuclear.
CC -! ALTERNATIVE PRODUCTS:
CC Event=Alternative splicing; Named isoforms=3;
CC Name=I;
CC IsoId=P29374-1; Sequence=Displayed;
CC Name=II;
CC IsoId=P29374-2; Sequence=VSP_004373;
CC Name=III;
CC IsoId=P29374-3; Sequence=VSP_004371, VSP_004372;
CC -! SIMILARITY: Contains 1 ARID domain.
CC
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC
CC EMBL; S66427; AAB28543.1; -; mRNA.
CC EMBL; S57153; AAB25833.1; -; mRNA.
CC EMBL; S57160; AAB25834.1; -; mRNA.
CC EMBL; S57162; AAB25835.2; -; mRNA.
CC FTR; I58383; I58383.
CC HSRP; Q24573; IIC20.
CC Ensembl; ENSG00000032219; Homo sapiens.
DR HGNC; HGNC:9885; ARID4A.
DR MIM; 180201; -.
DR GO; GO:0005634; C:nucleus; TAS.
DR GO; GO:000515; F:protein binding; TAS.
DR GO; GO:0003700; F:transcription factor activity; TAS.
DR GO; GO:0006366; P:transcription from RNA polymerase II promoter; TAS.
DR InterPro; IPR001606; ARID.
DR InterPro; IPR000953; Chromo.
DR InterPro; IPR012603; RBBINT.
DR InterPro; IPR002959; Tudor.
DR Pfam; PF01388; ARID; 1.
DR Pfam; PF08169; RBBINT; 1.
DR SMART; SM00501; BRIGHT; 1.
DR SMART; SM00298; CHROMO; 1.
DR SMART; SM00333; TUDOR; 1.
DR PROSITE; PS51011; ARID; 1.
DR Alternative splicing; Nuclear protein; Phosphorylation; Transcription;
KW Transcription regulation.
FT DOMAIN 309 401
FT REGION 951 964
FT ARID.
FT Retinoblastoma protein binding
FT (potential).
FT Phosphoserine.
FT MOD_RES 1109 1109
FT VARSPLIC 1106 1174
FT Missing (in isoform III).
FT /FTId=VSP_004371.
FT VARSPLIC 1121 1174
FT Missing (in isoform II).

```

FT  VARSPLIC 1175 1175 /FTid=VSP_004373.
FT  N -> D (in isoform III).
FT  /FTid=VSP_004372.
FT  L -> V (in Ref. 2).
FT  CONFLICT 385 385
FT  CONFLICT 618 618 S -> R (in Ref. 2).
FT  CONFLICT 653 653 K -> V (in Ref. 2).
FT  CONFLICT 779 779 A -> T (in Ref. 2).
FT  CONFLICT 1178 1178 D -> S (in Ref. 3).
FT  CONFLICT 1196 1201 IRKYYM -> SENIICL (in Ref. 3).
SQ  SEQUENCE 1257 AA; 142667 MW; F5C0AB6D6ED431DC CRC64;

Query Match 35.8%; Score 59; DB 1; Length 1257;
Best Local Similarity 42.9%; Pred. No. 47;
Matches 9; Conservative 8; Mismatches 4; Indels 0; Gaps 0;

QY 13 HLNSEXVEWLKKLODVHNY 33
Db 1179 NNMSTERISFLQKLQEI RYK 1199

RESULT 24
DMD MOUSE
ID DMD_MOUSE STANDARD; PRT; 3678 AA.
AC P11531; O35653; Q60703;
DT 01-OCT-1989 (Rel. 12, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 13-SEP-2005 (Rel. 48, Last annotation update)
DE Dystrophin.
GN Name=Dmd;
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC Muridae; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=92253376; PubMed=1579466;
RA Bies R.D., Phelps S.F., Cortez M.D., Roberts R., Caskey C.T.,
RA Chamberlain J.S.;
RT "Human and murine dystrophin mRNA transcripts are differentially
RT expressed during skeletal muscle, heart, and brain development.";
RL Nucleic Acids Res. 20:1725-1731(1992).
RN [2]
RP NUCLEOTIDE SEQUENCE OF 1-201.
RX MEDLINE=87273512; PubMed=3607877; DOI=10.1016/0092-8674(87)90504-6;
RA Koenig M., Hoffman E.P., Bertelson C.J., Monaco A.P., Feener C.,
RA Kunkel L.M.;
RT "Complete cloning of the Duchenne muscular dystrophy (DMD) cDNA and
RT preliminary genomic organization of the DMD gene in normal and
RT affected individuals.";
RL Cell 50:509-517(1987).
RN [3]
RP NUCLEOTIDE SEQUENCE OF 120-176.
RC STRAIN=129/J;
RX MEDLINE=92182520; PubMed=1543903;
RA Maconochie M.K., Brown S.D.M., Greenfield A.J.;
RT "Sequence analysis of two exons from the murine dystrophin locus.";
RL Mamm. Genome 2:64-68(1992).
RN [4]
RP NUCLEOTIDE SEQUENCE OF 300-1390.
RX MEDLINE=88018015; PubMed=3659917;
RA Hoffman E.P., Monaco A.P., Feener C.C., Kunkel L.M.;
RT "Conservation of the Duchenne muscular dystrophy gene in mice and
RT humans.";
RL Science 238:347-350(1987).
RN [5]
RP NUCLEOTIDE SEQUENCE OF 986-1056.
RC STRAIN=C57BL/10; TISSUE=Skeletal muscle;
RX MEDLINE=94154933; PubMed=811533;
RA Chamberlain J.S., Phelps S.F., Cox G.A., Maichele A.J.,
RA Greenwood A.D.;
RT "PCR analysis of muscular dystrophy in mdx mice.";
RL Mol. Cell Biol. Hum. Dis. Ser. 3:167-189(1993).

RN [6]
RP NUCLEOTIDE SEQUENCE OF 3069-3181.
RX PubMed=1377655;
RA Rapaport D., Lederfein D., den Dunnen J.T., Grootsholten P.M.,
RA van Ommen G.J., Fuchs O., Nudel U., Yaffe D.;
RT "Characterization and cell type distribution of a novel, major
RT transcript of the Duchenne muscular dystrophy gene.";
RL Differentiation 49:187-193(1992).
RN [7]
RP ALTERNATIVE SPLICING.
RC STRAIN=C57BL/10; TISSUE=Retina;
RX MEDLINE=95360002; PubMed=7633443;
RA D'Souza V.N., Nguyen T.M., Morris G.E., Karges W., Pillers D.-A.M.,
RA Ray P.N.;
RT "A novel dystrophin isoform is required for normal retinal
RT electrophysiology.";
RL Hum. Mol. Genet. 4:837-842(1995).
RN [8]
RP INTERACTION WITH SNTA1.
RX MEDLINE=96032613; PubMed=7547961;
RA Madhavan R., Jarrett H.W.;
RT "Interactions between dystrophin glycoprotein complex proteins.";
RL Biochemistry 34:12204-12209(1995).
RN [9]
RP INTERACTION WITH SNTB1.
RX MEDLINE=97362062; PubMed=9214383; DOI=10.1083/jcb.138.1.81;
RA Peters M.F., Adams M.E., Froehner S.C.;
RT "Differential association of syntrophin pairs with the dystrophin
RT complex.";
RL J. Cell Biol. 138:81-93(1997).
CC -!- FUNCTION: May play a role in anchoring the cytoskeleton to the
CC plasma membrane.
CC -!- SUBUNIT: Interacts with the syntrophins SNTA1, SNTB1, SNTB2, SNTG1
CC and SNTG2.
CC -!- INTERACTION:
CC Q61234:Snta1; NbExp=1; IntAct=EBI-295928, EBI-295952;
CC -!- ALTERNATIVE PRODUCTS:
CC Event=Alternative splicing; Named isoforms=1;
CC Comment=At least 11 isoforms are produced;
CC Name=1;
CC IsoId=P11531-1; Sequences=Displayed;
CC -!- TISSUE SPECIFICITY: Differentially expressed during skeletal
CC muscle, heart, and brain development. Also expressed in retina.
CC -!- SIMILARITY: Contains 2 CH (calponin-homology) domains.
CC -!- SIMILARITY: Contains 22 spectrin repeats.
CC -!- SIMILARITY: Contains 1 WW domain.
CC -!- SIMILARITY: Contains 1 ZZ-type zinc finger.
CC
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC
CC EMBL; M68859; AAB02797.1; -; mRNA.
CC EMBL; X58153; CAA41157.1; -; Genomic_DNA.
CC EMBL; M18025; AAB37530.1; -; mRNA.
CC EMBL; U56724; AAB01216.1; -; Genomic_DNA.
CC EMBL; U15218; AAA87068.1; -; mRNA.
CC FIR; S28916; S28916.
CC HSSP; P11532; 1EG3.
CC SMR; P11531; 9-246, 3040-3299.
CC IntAct; P11531; -
CC Ensembl; ENSMUSG00000045103; Mus musculus.
CC MGI; MGI:94909; Dmd.
CC GO; GO:0005626; C:insoluble fraction; IDA.
CC GO; GO:0005792; C:microsome; IDA.
CC GO; GO:0042383; C:sarcolemma; TAS.
CC GO; GO:0045202; C:synapse; IDA.
CC GO; GO:0005515; P:protein binding; IPI.
CC GO; GO:0007517; P:muscle development; IMP.
CC InterPro; IPR001589; Actnin actin bd.
CC InterPro; IPR001715; Calponin_act_bd.

```


RT "Expression profile of PTHRp in osmoregulatory organs following
 RT transfer of the flounder between sea water and fresh water."
 RL Submitted (APR-2004) to the EMBL/GenBank/DBJ databases.

KW EMBL; AJ698091; CAG27316.1; -; Genomic_DNA.
 FT SIGNAL.
 FT CHAIN 1 25 Potential.
 FT CHAIN 38 166 parathyroid hormone-related protein.
 SQ SEQUENCE 166 AA; 19221 MW; 2E5B502520DEE650 CRC64;

Query Match 35.5%; Score 58.5; DB 2; Length 166;
 Best Local Similarity 40.6%; Pred. No. 7;
 Matches 13; Conservative 7; Mismatches 11; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGKHLNSXERVEWLRLKQLQDVH 31

DB 38 SVSHAQMLMDKGRSLQEFKRRMWLQELLEVEH 69

RESULT 27

Q918U2 SPAAU
 ID Q918U2 SPAAU PRELIMINARY; PRT; 162 AA.
 AC Q918U2;
 DT 01-OCT-2000 (TrEMBLrel. 15, Created)
 DT 01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
 DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
 DE Parathyroid hormone-related protein.
 GN Names=PTHrP;
 OS Sparus aurata (Gilthead sea bream).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
 OC Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Percoidae;
 OC Sparidae; Sparus.
 OC NCBI_TaxID=8175;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.

TX TISSUE=Kidney;
 RX MEDLINE=20304721; PubMed=10843788; DOI=10.1006/gen.2000.7481;
 RA Flanagan J.A., Power D.M., Bendall L.A., Guerreiro P.M., Fuentes J.,
 RA Clark M.S., Canario A.V., Danks J.A., Brown B.L., Ingleton P.M.;
 RT "Cloning of the cDNA for sea bream (Sparus aurata) parathyroid
 RT hormone-related protein."
 RL Gen. Comp. Endocrinol. 118:373-382 (2000).
 DR EMBL; AF197904; AAF79073.1; -; mRNA.
 DR HSSP; P12272; 1BZG.

DR GO; GO:0005576; C:extracellular region; IEA.

DR GO; GO:0005179; F:hormone activity; IEA.

DR GO; GO:0007595; P:lactation; IEA.

DR InterPro; IPR001415; Parathyroid hrm.

DR InterPro; IPR003626; PTH related.

DR Pfam; PF01279; Parathyroid; 1.

DR ProDom; PD013225; PTH related; 1.

SQ SEQUENCE 162 AA; 18722 MW; 6E8D5E07F9E5EDC9 CRC64;

Query Match 34.8%; Score 57.5; DB 2; Length 162;
 Best Local Similarity 40.6%; Pred. No. 9.4;
 Matches 13; Conservative 6; Mismatches 12; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGKHLNSXERVEWLRLKQLQDVH 31

DB 38 SVSHAQMLMDKGRSLQEFKRRMWLQELLEVEH 69

RESULT 28

Q5H3Y0 XANOR
 ID Q5H3Y0 XANOR PRELIMINARY; PRT; 143 AA.
 AC Q5H3Y0;
 DT 10-MAY-2005 (TrEMBLrel. 30, Created)

DT 10-MAY-2005 (TrEMBLrel. 30, Last sequence update)

DT 10-MAY-2005 (TrEMBLrel. 30, Last annotation update)

DE Hypothetical protein.

GN OrderedLocusNames=X001087;

OS Xanthomonas oryzae (pv. oryzae).

OC Bacteria; Proteobacteria; Gammaproteobacteria; Xanthomonadales;

OC Xanthomonadaceae; Xanthomonas.

OX NCBI_TaxID=64187;

RP NUCLEOTIDE SEQUENCE [LARGE SCALE GENOMIC DNA].

RC STRAIN=KACC10331 / KX085;

RX PubMed=15673718; DOI=10.1093/nar/gki206;

RA Lee B.-W., Park Y.-J., Park D.-S., Kang H.-W., Kim J.-G., Song E.-S.,

RA Park I.-C., Yoon U.-H., Hahn J.-H., Koo B.-S., Lee G.-B., Kim H.,

RA Park H.-S., Yoon K.-O., Kim J.-H., Jung C.-H., Koh N.-H., Seo J.-S.,

RA Go S.-J.;

RT "The genome sequence of Xanthomonas oryzae pathovar oryzae KACC10331,

RT the bacterial blight pathogen of rice.";

RL Nucleic Acids Res. 33:577-586 (2005).

DR EMBL; AR013598; AAW74341.1; -; Genomic_DNA.

DR InterPro; IPR002589; Altp.

DR SMART; SM00506; Altp; 1

KW Complete proteome; Hypothetical protein.

SQ SEQUENCE 143 AA; 16082 MW; 05BE8CD6F6E8E889 CRC64;

Query Match 34.5%; Score 57; DB 2; Length 143;
 Best Local Similarity 36.4%; Pred. No. 9.6;
 Matches 8; Conservative 6; Mismatches 8; Indels 0; Gaps 0;

QY 12 KHLNSXERVEWLRLKQLQDVHNY 33

DB 85 QHWRGDSRIEWITGLQLDHRF 106

DE (Chromosome undetermined SCAF1948, whole genome shotgun sequence)

DE (Chromosome undetermined SCAF6039, whole genome shotgun sequence)

DE (Fragment)

GN ORFNames=GSTENG0000866001, GSTENG00002625001, GSTENG000037534001;

OS Tetraodon nigroviridis (Green puffer).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;

OC Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;

OC Tetraodontidae; Tetraodontidae; Tetraodon.

OX NCBI_TaxID=99883;

RN [1]

RP NUCLEOTIDE SEQUENCE.

RA Jaillon O., Aury J.M., Brunet F., Petit J.L., Stange-Thomann N.,

RA Mauceli E., Bouneau L., Fischer C., Ozouf-Costaz C., Bernot A.,

RA Nicaud S., Jaffe D., Fieher S., Lutfalla G., Dossat C., Segurens B.,

RA Dasilva C., Salanoubat M., Levy M., Boudet N., Castellano S.,

RA Anthouard V., Jubin C., Castelli V., Katinka M., Vacherie B.,

RA Biemont C., Skalli Z., Cattolico L., Poullain J., De Berardinis V.,

RA Craud C., Duprat S., Brottier P., Coutanceau J.P., Gouzy J.,

RA Parra G., Lardier G., Chapple C., McKernan K.J., McEwan P., Bosak S.,

RA Kellis M., Wolff J.N., Guigo R., Zody M.C., Mesirov J.,

RA Lindblad-Toh K., Birren B., Nusbaum C., Kahn D., Robinson-Rechavi M.,

RA Laudet V., Schachter V., Quetier F., Saurin W., Scarpelli C.,

RA Wincker P., Lander E.S., Weissbach J., Roest Crolius H.;

RT "Genome duplication in the teleost fish Tetraodon nigroviridis reveals

RT the early vertebrate proto-karyotype.";

RL Nature 431:946-957 (2004).

RN [2]

RP NUCLEOTIDE SEQUENCE.

RG Genoscope; Whitehead Institute Centre for Genome Research;

RL Submitted (FEB-2004) to the EMBL/GenBank/DBJ databases.

CC -!- CAUTION: The sequence shown here is derived from an

CC EMBL/GenBank/DBJ whole genome shotgun (WGS) entry which is

CC preliminary data.

DR EMBL; CAAB01003379; CAF87848.1; -; Genomic_DNA.

DR EMBL; CAAB01006039; CAF88940.1; -; Genomic_DNA.

DR EMBL; CAAB01001948; CAF87254.1; -; Genomic_DNA.

FT ACT_SITE 526 Charge relay system (By similarity).

FT ACT_SITE 576 Charge relay system (By similarity).

FT ACT_SITE 699 Charge relay system (By similarity).

FT CARBOHYD 122 N-linked (GlcNAc...) (Potential).

FT CARBOHYD 142 N-linked (GlcNAc...) (Potential).

FT CARBOHYD 285 N-linked (GlcNAc...) (Potential).

FT CARBOHYD 378 N-linked (GlcNAc...) (Potential).

FT DISULFID 37 76 By similarity.

FT DISULFID 62 98 By similarity.

FT DISULFID 103 145 By similarity.

FT DISULFID 131 158 By similarity.

FT DISULFID 165 205 By similarity.

FT DISULFID 191 218 By similarity.

SQ SEQUENCE 764 AA; 85526 MW; 2C6E9FFC2846D847 CRC64;

Query Match 33.3%; Score 55; DB 1; Length 764;

Best Local Similarity 34.6%; Pred. No. 1e+02;

Matches 9; Conservative 7; Mismatches 10; Indels 0; Gaps 0;

QY 4 ETQHXNKGHLNKSXERVWLKKLQD 29

Db 733 QVPAHARDPHINLFQVLPWLKELQD 758

RESULT 32

CFAB_HUMAN STANDARD; PRT; 764 AA.

AC P00751; O15006; Q29944; Q96HX6; Q9BTF5; Q9BX92;

DT 21-JUL-1986 (Rel. 01, Created)

DT 01-OCT-1994 (Rel. 30, Last sequence update)

DT 13-SEP-2005 (Rel. 48, Last annotation update)

DE Complement factor B precursor (EC 3.4.21.47) (C3/C5 convertase)

DE (Properdin factor B) (Glycine-rich beta glycoprotein) (GBG) (PBF2)

DE [Contains: Complement factor B Ba fragment; Complement factor B Bb fragment].

DE Names=BF;

OS Homo sapiens (Human).

OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;

OC NCBI_TaxID=9606;

OX Homo

RN [1]

RP NUCLEOTIDE SEQUENCE (ISOFORM 1), AND VARIANTS ARG-28; GLN-28; GLN-32 AND SER-736.

RX MEDLINE=91065702; PubMed=2249879; DOI=10.1007/BF00211644;

RA Davrinche C., Abbal M., Clerc A.;

RT "Molecular characterization of human complement factor B subtypes.";

RL Immunogenetics 32:309-312(1990).

RN [2]

RP NUCLEOTIDE SEQUENCE (ISOFORM 1), AND VARIANTS ARG-28 AND GLN-32.

RC TISSUE=Liver;

RX MEDLINE=94237735; PubMed=8181662; DOI=10.1016/0198-8859(94)90100-7;

RA Mejia J.E., Jahn I., de la Salle H., Hauptmann G.;

RT "Human factor B. Complete cDNA sequence of the BF*S allele.";

RL Hum. Immunol. 39:49-53(1994).

RN [3]

RP NUCLEOTIDE SEQUENCE (ISOFORM 1), AND VARIANTS ARG-28 AND GLN-32.

RC TISSUE=Liver;

RX MEDLINE=94041399; PubMed=8225386;

RA Schwaebig W., Luettig B., Sokolowski T., Estaller C., Weiss E.H., Meyer Zum Bueschenfelde K.-H., Whaley K., Dippold W.;

RT "Human complement factor B: functional properties of a recombinant zymogen of the alternative activation pathway convertase.";

RL Immunobiology 188:221-232(1993).

RN [4]

RP NUCLEOTIDE SEQUENCE (ISOFORM 1), AND VARIANTS ARG-28 AND GLN-32.

RX MEDLINE=94067177; PubMed=8247029; DOI=10.1016/0161-5890(93)90450-P;

RA Horuchi T., Kim S., Matsumoto M., Watanabe I., Fujita S., Volanakis J.E.;

RT "Human complement factor B: cDNA cloning, nucleotide sequencing, phenotypic conversion by site-directed mutagenesis and expression.";

RL Mol. Immunol. 30:1587-1592(1993).

RN [5]

RP NUCLEOTIDE SEQUENCE (ISOFORM 1), AND VARIANTS HIS-9; GLN-32; TRP-32; SER-252; GLU-565 AND GLU-651.

RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;

RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G., Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D., Altshul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K., Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F., Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., Stapleton M.J., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E., Brownstein M.J., Ustin T.B., Toshiyuki S., Carninci P., Prange C., Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J., Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A., Fahey J., Helton E., Kettman M., Madan A., Rodriguez S., Sanchez A., Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E., Scherch A., Schein J.E., Jones S.J.M., Marita M.A.;

RT "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences.";

RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).

RN [9]

RP PROTEIN SEQUENCE OF 26-764, PARTIAL NUCLEOTIDE SEQUENCE, AND CARBOHYDRATES.

RX MEDLINE=84161997; PubMed=6546754;

RA Mole J.E., Anderson J.K., Davison E.A., Woods D.E.;

RT "Complete primary structure for the zymogen of human complement factor B.";

RL J. Biol. Chem. 259:3407-3412(1984).

RN [10]

RP PROTEIN SEQUENCE OF 260-764.

RX MEDLINE=83204002; PubMed=6342610;

RA Christie D.L., Gagnon J.;

RT "Amino acid sequence of the Bb fragment from complement Factor B. Sequence of the major cyanogen bromide-cleavage peptide (CB-II) and completion of the sequence of the Bb fragment.";

RL Biochem. J. 209:61-70(1983).

RN [11]

RP NUCLEOTIDE SEQUENCE OF 339-764.

RX MEDLINE=83273641; PubMed=6308626;

RA Campbell R.D., Porter R.R.;

RT "Molecular cloning and characterization of the gene coding for human complement protein factor B.";

RL Proc. Natl. Acad. Sci. U.S.A. 80:4464-4468(1983).

RN [12]

RP NUCLEOTIDE SEQUENCE OF 467-595 AND 752-764.

RX MEDLINE=83039428; PubMed=6957884;

RP NUCLEOTIDE SEQUENCE [LARGE SCALE GENOMIC DNA].

RX PubMed=14656967; DOI=10.1101/gr.1736803;

RA Xie T., Rowen L., Aguado B., Ahearn M.E., Madan A., Qin S., Campbell R.D., Hood L.;

RT "Analysis of the gene-dense major histocompatibility complex class III region and its comparison to mouse.";

RL Genome Res. 13:2621-2636(2003).

RN [6]

RP NUCLEOTIDE SEQUENCE (ISOFORM 2).

RA Jaatinen T., Kanerva J., Poutanen K.E., Saarinen-Pihkala U., Lokki M.-L.;

RT "Expression and alternative splicing of human factor B gene in leukemic mononuclear cells.";

RL Submitted (FEB-2001) to the EMBL/GenBank/DBJ databases.

RN [7]

RP NUCLEOTIDE SEQUENCE (GENOMIC DNA), AND VARIANTS HIS-9; GLN-32; TRP-32; SER-252; GLU-565 AND GLU-651.

RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;

RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G., Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D., Altshul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K., Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F., Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., Stapleton M.J., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E., Brownstein M.J., Ustin T.B., Toshiyuki S., Carninci P., Prange C., Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J., Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A., Fahey J., Helton E., Kettman M., Madan A., Rodriguez S., Sanchez A., Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E., Scherch A., Schein J.E., Jones S.J.M., Marita M.A.;

RT "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences.";

RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).

RN [9]

RP PROTEIN SEQUENCE OF 26-764, PARTIAL NUCLEOTIDE SEQUENCE, AND CARBOHYDRATES.

RX MEDLINE=84161997; PubMed=6546754;

RA Mole J.E., Anderson J.K., Davison E.A., Woods D.E.;

RT "Complete primary structure for the zymogen of human complement factor B.";

RL J. Biol. Chem. 259:3407-3412(1984).

RN [10]

RP PROTEIN SEQUENCE OF 260-764.

RX MEDLINE=83204002; PubMed=6342610;

RA Christie D.L., Gagnon J.;

RT "Amino acid sequence of the Bb fragment from complement Factor B. Sequence of the major cyanogen bromide-cleavage peptide (CB-II) and completion of the sequence of the Bb fragment.";

RL Biochem. J. 209:61-70(1983).

RN [11]

RP NUCLEOTIDE SEQUENCE OF 339-764.

RX MEDLINE=83273641; PubMed=6308626;

RA Campbell R.D., Porter R.R.;

RT "Molecular cloning and characterization of the gene coding for human complement protein factor B.";

RL Proc. Natl. Acad. Sci. U.S.A. 80:4464-4468(1983).

RN [12]

RP NUCLEOTIDE SEQUENCE OF 467-595 AND 752-764.

RX MEDLINE=83039428; PubMed=6957884;


```

DR InterPro: IPR002035; VWF_A.
DR Pfam: PF00084; Sushi; 3.
DR Pfam: PF00089; Trypsin; 1.
DR Pfam: PF00092; VWF; 1.
DR PIRSF: PIRSF001154; Compl C2 B; 1.
DR PRINTS: PR00722; CHYMOTRYPSIN.
DR PRINTS: PR00453; VWFADOMAIN.
DR PROSITE: PS50923; SUSHI; 3.
DR PROSITE: PS50240; TRYPSIN_DOM; 1.
DR PROSITE: PS00134; TRYPSIN_HIS; 1.
DR PROSITE: PS00135; TRYPSIN_SER; 1.
DR PROSITE: PS50234; VWF_A; 1.
KW Complement alternate pathway: Glycoprotein; Hydrolase;
KW Immune response; Innate immunity; Plasma; Protease; Repeat;
KW Serine protease; Signal; Sushi; Zymogen.
FT SIGNAL 1 25 By similarity.
FT CHAIN 26 764 Complement factor B.
FT CHAIN 26 259 Complement factor B Ba fragment.
FT CHAIN 260 764 Complement factor B Bb fragment.
FT DOMAIN 35 100 Sushi 1.
FT DOMAIN 101 160 Sushi 2.
FT DOMAIN 163 220 Sushi 3.
FT DOMAIN 270 469 VWFA.
FT DOMAIN 477 757 Peptidase S1.
FT ACT_SITE 526 526 Charge relay system (By similarity).
FT ACT_SITE 576 576 Charge relay system (By similarity).
FT ACT_SITE 699 699 Charge relay system (By similarity).
FT CARBOHYD 122 122 N-linked (GlcNAc..) (Potential).
FT CARBOHYD 142 142 N-linked (GlcNAc..) (Potential).
FT CARBOHYD 285 285 N-linked (GlcNAc..) (Potential).
FT CARBOHYD 378 378 N-linked (GlcNAc..) (Potential).
FT DISULFID 37 76 By similarity.
FT DISULFID 62 98 By similarity.
FT DISULFID 103 145 By similarity.
FT DISULFID 131 158 By similarity.
FT DISULFID 165 205 By similarity.
FT DISULFID 191 218 By similarity.
SQ SEQUENCE 764 AA; 85513 MW; 972C097E0934FED1 CRC64;

Query Match 33.3%; Score 55; DB 1; Length 764;
Best Local Similarity 34.6%; Pred No 1e+02;
Matches 9; Conservative 7; Mismatches 10; Indels 0; Gaps 0;

QY 4 EIQHNKXGHLNKSXRVWLKRLQD 29
Db 733 QVPAHARDPHINLQVLPWLKRLQD 758

RESULT 34
CFAB_PONPY STANDARD; PRT; 764 AA.
AC Q864W1;
DT 05-JUL-2004 (Rel. 44, Created)
DT 05-JUL-2004 (Rel. 44, Last sequence update)
DT 13-SEP-2005 (Rel. 48, Last annotation update)
DE Complement factor B precursor (EC 3.4.21.47) (C3/C5 convertase)
DE [Contains: Complement factor B Ba fragment; Complement factor B Bb fragment].
DE Name=BF;
GN Pongo pygmaeus (Orangutan).
OS Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Pongo.
OX NCBI_TaxID=9600;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Schneider P.M., Tantalaki E., Stradmann-Bellinghausen B., Rittner C.;
RT "Comparative analysis of human and primate complement C2 and factor B genes."
RL Submitted (JAN-2002) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: Factor B which is part of the alternate pathway of the complement system is cleaved by factor D into 2 fragments: Ba and Bb. Bb, a serine protease, then combines with complement factor 3b

```

Query Match

33.3%; Score 55; DB 1; Length 764;

```
Best Local Similarity 34.6%; Pred. No. 1e+02;
Matches 9; Conservative 7; Mismatches 10; Indels 0; Gaps 0;

QY 4 EIQXNKGKHLNSXERVWLKQLQD 29
Db 733 QVPAHARDPHINLFQVLPWLKQLQD 758

RESULT 35
Q53F89 HUMAN
ID Q53F89_HUMAN PRELIMINARY; PRT; 764 AA.
AC Q53F89;
DT 13-SEP-2005 (TrEMBLrel. 31, Created)
DT 13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT 13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE Complement factor B preproprotein variant (fragment).
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE
RA Matuyama K.; Sugano S.;
RT "Oligo-capping : a simple method to replace the cap structure of
eucaryotic mRNAs with oligoribonucleotides.";
RL Gene 138:171-174 (1994).
[2]
RN [2]
RP NUCLEOTIDE SEQUENCE
RA Suzuki Y., Yoshitomo K., Maruyama K., Suyama A., Sugano S.;
RT "Construction and characterization of a full length-enriched and a 5'-
end-enriched cDNA library.";
RL Gene 200:149-156 (1997).
[3]
RN [3]
RP NUCLEOTIDE SEQUENCE
RA Totoki Y., Toyoda A., Takeda T., Sakaki Y., Tanaka A., Yokoyama S.;
RL Submitted (APR-2005) to the EMBL/GenBank/DBJ databases.
EMBL; AK297120.1; -; mRNA.
DR GO: 0005576; C:extracellular region; IEA.
DR GO: 0004263; F:chymotrypsin activity; IEA.
DR GO: 0004295; F:trypsin activity; IEA.
DR GO: 0006956; P:complement activation; IEA.
DR GO: 0006508; P:proteolysis and peptidolysis; IEA.
DR Sush.
KW Sush.
FT NON_TER 1
SQ SEQUENCE 764 AA; 85562 MW; 7574383E5FF7CC95 CRC64;

Query Match 33.3%; Score 55; DB 2; Length 764;
Best Local Similarity 34.6%; Pred. No. 1e+02;
Matches 9; Conservative 7; Mismatches 10; Indels 0; Gaps 0;

QY 4 EIQXNKGKHLNSXERVWLKQLQD 29
Db 733 QVPAHARDPHINLFQVLPWLKQLQD 758

RESULT 36
Q5JP67 HUMAN
ID Q5JP67_HUMAN PRELIMINARY; PRT; 764 AA.
AC Q5JP67;
DT 10-MAY-2005 (TrEMBLrel. 30, Created)
DT 10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
DT 10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
DE B-factor, properdin.
GN Name=BF; ORFNames=DAQ8-331112.9-001;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE
RA Brown J.;
```

```
Submitted (MAY-2005) to the EMBL/GenBank/DBJ databases.
EMBL; AL844853; CAI41860.1; -; Genomic_DNA.
SNR; Q5JP67; 268-458, 476-764.
DR GO: 0005576; C:extracellular region; IEA.
DR GO: 0004263; F:chymotrypsin activity; IEA.
DR GO: 0004295; F:trypsin activity; IEA.
DR GO: 0006956; P:complement activation; IEA.
DR GO: 0006508; P:proteolysis and peptidolysis; IEA.
DR InterPro; IPR011360; Compl_C2_B.
DR InterPro; IPR001254; Peptidase_S1_S6.
DR InterPro; IPR001314; Peptidase_S1A.
DR InterPro; IPR000436; Sush. SCR_CCP.
DR Pfam; PF00084; Sush. 3.
DR Pfam; PF00089; Trypsin; 1.
DR Pfam; PF00092; VWFA; 1.
DR PIRSF; PIRSF001154; Compl_C2_B; 1.
DR PRINTS; PR00722; CHYMOTRYPSIN.
DR PRINTS; PR00453; VWFADOMAIN.
DR SMART; SM00032; CCP; 3.
DR SMART; SM00020; Tryp_Spc; 1.
DR SMART; SM00327; VWFA; 1.
DR PROSITE; PS00923; SUSHI; 3.
DR PROSITE; PS0240; TRYPSIN_DOM; 1.
DR PROSITE; PS00134; TRYPSIN_HIS; UNKNOWN_1.
DR PROSITE; PS00135; TRYPSIN_SER; 1.
DR PROSITE; PS0234; VWFA; 1.
KW Hydrolase; Protease; Serine protease; Sush.
SQ SEQUENCE 764 AA; 85534 MW; 40A77DA6D77CCFB3 CRC64;

Query Match 33.3%; Score 55; DB 2; Length 764;
Best Local Similarity 34.6%; Pred. No. 1e+02;
Matches 9; Conservative 7; Mismatches 10; Indels 0; Gaps 0;

QY 4 EIQXNKGKHLNSXERVWLKQLQD 29
Db 733 QVPAHARDPHINLFQVLPWLKQLQD 758

RESULT 37
Q5ST50 HUMAN
ID Q5ST50_HUMAN PRELIMINARY; PRT; 764 AA.
AC Q5ST50;
DT 01-FEB-2005 (TrEMBLrel. 29, Created)
DT 01-FEB-2005 (TrEMBLrel. 29, Last sequence update)
DT 13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE B-factor, properdin.
GN Name=BF; ORFNames=XXBac-BCX11619.3-001, XXBac-BPG116M5.11-001;
OS Homo sapiens (Human)
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE
RA Tracey A.;
RL Submitted (MAY-2005) to the EMBL/GenBank/DBJ databases.
[2]
RN [2]
RP NUCLEOTIDE SEQUENCE
RA Griffiths C.;
RL Submitted (DEC-2004) to the EMBL/GenBank/DBJ databases.
EMBL; AL662849; CAI17456.1; -; Genomic_DNA.
DR EMBL; AL645922; CAI41726.1; -; Genomic_DNA.
DR SNR; Q5ST50; 268-458, 476-764.
DR GO: 0005576; C:extracellular region; IEA.
DR GO: 0004263; F:chymotrypsin activity; IEA.
DR GO: 0004295; F:trypsin activity; IEA.
DR GO: 0006956; P:complement activation; IEA.
DR GO: 0006508; P:proteolysis and peptidolysis; IEA.
DR InterPro; IPR011360; Compl_C2_B.
DR InterPro; IPR001254; Peptidase_S1_S6.
DR InterPro; IPR001314; Peptidase_S1A.
```

DR InterPro; IPR000436; Sushi_SCR_CCP.
 DR InterPro; IPR002035; VWF_A.
 DR Pfam; PF00084; Sushi; 3.
 DR Pfam; PF00089; Trypsin; 1.
 DR Pfam; PF00092; VWA; 1.
 DR PIRSF; PIRSF001154; Compl C2 B; 1.
 DR PRINTS; PR00722; CHYMOTRYPSIN.
 DR PRINTS; PR00453; VWFADOMAIN.
 DR SMART; SM00032; CCP; 3.
 DR SMART; SM00020; Tryp SPC; 1.
 DR SMART; SM00327; VWA; 1.
 DR PROSITE; PS0923; SUSHI; 3.
 DR PROSITE; PS0240; TRYPsin_DOM; 1.
 DR PROSITE; PS00134; TRYPsin_HIS; UNKNOWN 1.
 DR PROSITE; PS00135; TRYPsin_SER; 1.
 DR PROSITE; PS0234; VWFA; 1.
 KW Hydrolase; Protease; Serine protease; Sushi.
 SQ SEQUENCE 764 AA; 85533 MW; 8BB6C10CC6AC200 CRC64;

Query Match 33.3%; Score 55; DB 2; Length 764;
 Best Local Similarity 34.6%; Pred. No. 1e+02;
 Matches 9; Conservative 7; Mismatches 10; Indels 0; Gaps 0;

QY 4 EIQXHNXGKHLNSXERVELRKLQD 29
 DB 733 QVPFHARDPHINLQVLPWLKELQD 758

RESULT 38
 Q83JQ3 SHIFL
 ID Q83JQ3 SHIFL PRELIMINARY; PRT; 118 AA.
 AC Q83JQ3;
 DT 01-JUN-2003 (TrEMBLrel. 24, Created)
 DT 01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
 DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
 DE IS629 ORF2.
 GN OrderedLocusNames=SF2978;
 OS Shigella flexneri.
 OC Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
 OC Enterobacteriaceae; Shigella.
 OX NCBI_TaxID=623;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RC STRAIN=301 / Serotype 2a;
 RX MEDLINE=2272406; PubMed=12384590; DOI=10.1093/nar/gkf566;
 RA Jin Q., Yuan Z., Xu J., Wang Y., Shen Y., Lu W., Wang J., Liu H.,
 RA Yang J., Yang F., Zhang X., Zhang J., Yang G., Wu H., Qu D., Dong J.,
 RA Sun L., Xue Y., Zhao A., Gao Y., Zhu J., Kan B., Ding K., Chen S.,
 RA Cheng H., Yao Z., He B., Chen R., Ma D., Qiang B., Wen Y., Hou Y.,
 RA Yu J.;
 RT "Genome sequence of Shigella flexneri 2a: insights into pathogenicity
 RT through comparison with genomes of Escherichia coli K12 and O157";
 RL Nucleic Acids Res. 30:4432-4441(2002).
 DR EMBL; AE003674; AAN44459.1; -; Genomic_DNA.
 KW Complete proteome.
 SQ SEQUENCE 118 AA; 13701 MW; D81C780B9EBE303B CRC64;

Query Match 32.7%; Score 54; DB 2; Length 118;
 Best Local Similarity 33.3%; Pred. No. 20;
 Matches 9; Conservative 9; Mismatches 9; Indels 0; Gaps 0;

QY 6 QXHNXGKHLNSXERVELRKLQDVHN 32
 DB 34 QRHFDKSSRAQRDDWLKKEIQRYVD 60

RESULT 39
 Q7R8J7 PLAYO
 ID Q7R8J7 PLAYO PRELIMINARY; PRT; 323 AA.
 AC Q7R8J7;
 DT 01-MAR-2004 (TrEMBLrel. 26, Created)
 DT 01-MAR-2004 (TrEMBLrel. 26, Last sequence update)
 DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)

DE Hypothetical protein.
 GN Name=PY07225;
 OS Plasmodium yoelii yoelii
 OC Eukaryota; Alveolata; Apicomplexa; Haemosporida; Plasmodium.
 OX NCBI_TaxID=73239;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RC STRAIN=17XNL;
 RX MEDLINE=22255706; PubMed=12368865; DOI=10.1038/nature01099;
 RA Carlton J.M., Angiuoli S.V., Suh B.B., Kooij T.W., Perte M.,
 RA Silva J.C., Ermolaeva M.D., Allen J.E., Selengut J.D., Koo H.L.,
 RA Peterson J.D., Pop M., Kosack D.S., Shumway M.F., Bidwell S.L.,
 RA Shallom S.J., van Aken S.E., Riedmuller S.B., Feldblum T.V.,
 RA Cho J.K., Quackenbush J., Sedegah M., Shoabi A., Cummings L.M.,
 RA Florens L., Yates J.R. III, Raine J.D., Sinden R.E., Harris M.A.,
 RA Cunningham D.A., Preiser P.R., Bergman L.W., Vaidya A.B.,
 RA van Lin L.H., Janse C.J., Waters A.P., Smith H.O., White O.R.,
 RA Salzberg S.L., Venter J.C., Fraser C.M., Hoffman S.L., Gardner M.J.,
 RA Carucci D.J.;
 RT "Genome sequence and comparative analysis of the model rodent malaria
 RT parasite Plasmodium yoelii yoelii";
 RL Nature 419:512-519(2002).
 CC -!- CAUTION: The sequence shown here is derived from an
 CC preliminary data.
 CC EMBL/GenBank/DBJ whole genome shotgun (WGS) entry which is
 DR Hypothetical protein.
 KW Hypothetical protein.
 SQ SEQUENCE 323 AA; 38968 MW; 4BB74EF385743973 CRC64;

Query Match 32.7%; Score 54; DB 2; Length 323;
 Best Local Similarity 34.6%; Pred. No. 57;
 Matches 9; Conservative 7; Mismatches 10; Indels 0; Gaps 0;
 QY 8 HNXGKHLNSXERVELRKLQDVHNY 33
 DB 296 HEWKRLRYNEKFEYIKKPKSIHNH 321

RESULT 40
 Q5ZIS6 CHICK
 ID Q5ZIS6 CHICK PRELIMINARY; PRT; 1252 AA.
 AC Q5ZIS6;
 DT 25-OCT-2004 (TrEMBLrel. 28, Created)
 DT 25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
 DT 25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
 DE Hypothetical protein.
 GN ORNames=RCMB04_2307;
 OS Gallus gallus (Chicken).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
 OC Gallus.
 OX NCBI_TaxID=9031;
 RN [1]
 RP NUCLEOTIDE SEQUENCE.
 RC STRAIN=CB; TISSUE=Bursa;
 RA Caldwell R.B., Kierzek A.M., Arakawa H., Bezzubov Y., Zaim J.,
 RA Fiedler P., Kutter S., Blagodatski A., Kostovska D., Koter M.,
 RA Plachy J., Carninci P., Hayashizaki Y., Buerstedde J.M.;
 RT "Full-length cDNAs from chicken bursal lymphocytes to facilitate
 RT gene function analysis";
 RL Genome Biol. 6:R6-R6(2005).
 DR EMBL; AJ720708; CAG32367.1; -; mRNA.
 DR GO; GO:0000785; C:nucleus; IEA.
 DR GO; GO:0005634; C:nucleus; IEA.
 DR GO; GO:0003682; F:chromatin binding; IEA.
 DR GO; GO:0006333; F:chromatin assembly or disassembly; IEA.
 DR InterPro; IPR001606; ARID.
 DR InterPro; IPR000953; Chromo.
 DR InterPro; IPR002399; Tudor.
 DR Pfam; PF01388; ARID; 1.
 DR SMART; SM00501; BRIGHT; 1.
 DR SMART; SM00298; CHROMO; 1.
 DR SMART; SM00333; TUDOR; 1.

DR PROSITE; PSS1011; ARID; 1.
 KW Hypothetical protein.
 SQ SEQUENCE 1252 AA; 141790 MW; B9FA32177E73B96E CRC64;
 Query Match 32.7%; Score 54; DB 2; Length 1252;
 Best Local Similarity 38.1%; Pred. No. 2.3e+02;
 Matches 8; Conservative 9; Mismatches 4; Indels 0; Gaps 0;
 QY 13 HLNSEXRVWLRKKLQDVHNY 33
 Db 1174 NMSSTERISFLOEKLOEIRKY 1194

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